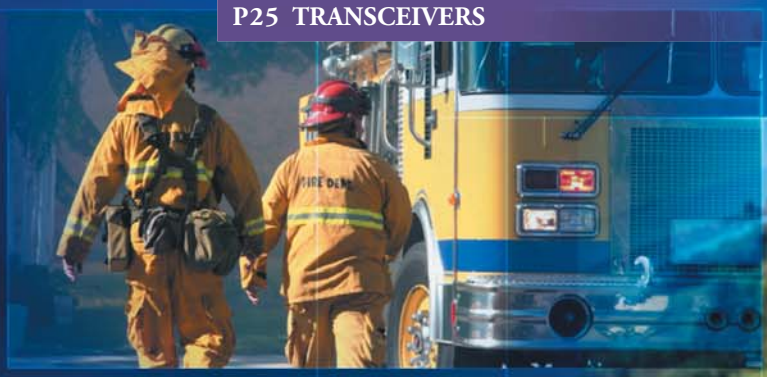
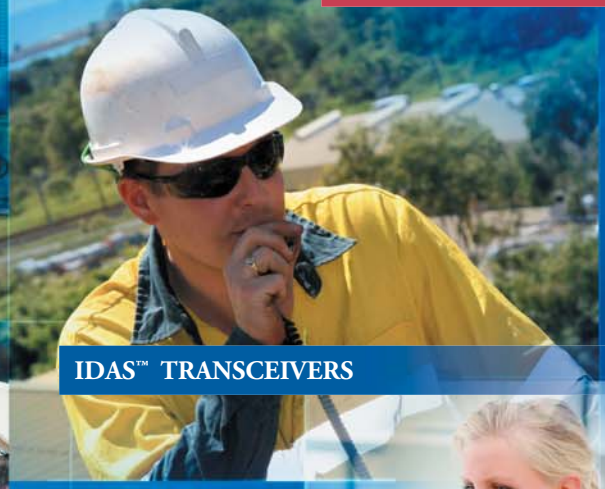
ICOM

PROFESSIONAL COMMUNICATIONS

HF TRANSCEIVERS

P25 TRANSCEIVERS





IDAS™ TRANSCEIVERS

ANALOG TRANSCEIVERS

RoIP/VPN ROUTER

HARD WORKING RADIOS

Company Profile

Icom,the wireless communications experts

Icom Inc. is a wireless communications manufacturing company located in Osaka, Japan. Since Icom's establishment in 1954, we've had a long record as a trusted manufacturer of land mobile radio, amateur radio, marine radio, navigation products, aviation radio and communications receivers.

Quality & Reliability

Icom quality and Icom reliability

Over 50 years of engineering and production excellence is a part of every Icom product. Using the latest equipment, Icom radios are tested to pass rigorous in-house tests as well as environmental tests to U.S. Military standard 810 specifications.

Dust Protection

Air Leak Test

Production

Made in Japan quality

Icom is a rare example of an electronics manufacturer that has not shifted production to lower cost countries, but kept its production base in Japan. The Wakayama Icom plant has an advanced production system to produce small volume/multi-model wireless communication products.

Icom brand

Icom, world brand name

Icom is recognized as a reliable 2-way radio global brand name around the world. Our land mobile radios are used by many professional organizations all over the world, like the United States Department of Defense. In fact, Icom was chosen as the first Japanese company to supply radios to the U.S. Marine Corps.

Network

Icom's worldwide network

Icom products are sold in over 80 countries around the world. Icom has an international sales and service network, including sales subsidiaries in the U.S., Australia, Germany, Spain and China. Icom is here to support and service our products and your communication needs.

PROFESSIONAL COMMUNICATIONS PRODUCT LINEUP

IDAS™ TRANSCEIVERS

VHF IC-F3261D series
UHF IC-F4261D series
Multi-site Trunking
IP67 GPS
» P.3

VHF IC-F3161D series
UHF IC-F4161D series
Multi-site Trunking
IP55 FM APPROVED
» P.3

VHF IC-F3230D series
UHF IC-F4230D series
Multi-site Trunking
IP67
» P.4

VHF IC-F3210D
UHF IC-F4210D
Multi-site Trunking
» P.4

VHF IC-F3101D series
UHF IC-F4101D series
Single-site Trunking
IDAS/Analog Mixed Mode
» P.5

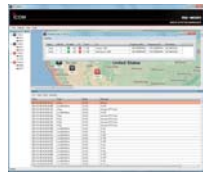
VHF IC-F5061D series
UHF IC-F6061D series
Multi-site Trunking
» P.3

VHF IC-F5220D
UHF IC-F6220D
Multi-site Trunking
» P.4

VHF IC-F5121D series
UHF IC-F6121D series
Single-site Trunking
IDAS/Analog Mixed Mode
» P.5

VHF IC-FR5000
UHF IC-FR6000
» P.5

REMOTE COMMUNICATOR
RC-FS10
Multi-site Trunking
IDAS Conventional
Analog (With VE-PG3)
» P.6



IDAS™ NXDN™ SYSTEM MANAGER
RS-MGR1
Multi-site Trunking
» P.6

P25 TRANSCEIVERS

VHF IC-F9011 series
UHF IC-F9021 series
P25 Trunking
IP57
» P.7

VHF IC-F70 series
UHF IC-F80 series
P25 Conventional
IP57 FM APPROVED
» P.7

VHF IC-F9511HT
P25 Trunking Dual head (option) 110W
» P.8

VHF IC-F9511 series
UHF IC-F9521 series
P25 Trunking
» P.9

VHF IC-F1721 series
UHF IC-F2721 series
P25 Conventional
» P.8

VHF IC-FR9010
UHF IC-FR9020
P25 Conventional
» P.9

ANALOG TRANSCEIVERS

VHF IC-F50V
UHF IC-F60V
IP67 Vibration alert
» P.11

VHF IC-F3030 series
UHF IC-F4030 series
IP67
» P.11

VHF IC-F3001
UHF IC-F4001
» P.12

VHF IC-F3011
UHF IC-F4011
» P.12

VHF IC-F5021 series
UHF IC-F6021 series
» P.10

VHF IC-F5011 series
UHF IC-F6011 series
» P.10

HF TRANSCEIVERS

HF IC-F8101
» P.13

HF IC-F7000
» P.14

AUTOMATIC TUNING ANTENNA
AH-740
» P.13

AUTOMATIC TUNING ANTENNA
AH-760
» P.13

RoIP/VPN ROUTER

RoIP GATEWAY
VE-PG3
» P.15

VPN ROUTER
SR-VPN1
» P.15

FULL FEATURED WITH GPS & WATERPROOF

VHF HANDHELD TRANSCEIVERS
IC-F3261DT/DS (5W)
IC-F3263DT/DS (5W)

UHF HANDHELD TRANSCEIVERS
IC-F4261DT/DS (5W)
IC-F4263DT/DS (5W)

» General Features

- 136–174MHz, 5W
- 350–400, 400–470, 450–512, 450–520MHz, 5W
- 512 memory channels with 128 zones
- Dot-matrix, multi-function display
- IP67, dust-tight and waterproof protection
- Built-in GPS receiver*
- Built-in man down function*
- MIL-STD rugged construction
- Large capacity Lithium-Ion battery pack
- 800mW (typ.) loud audio
- Mode dependent scan • Escalating alarm
- Priority scan • DTMF autodial
- Lone worker function • Power on password
- Busy channel lockout, repeater lockout and time-out-timer
- Surveillance function
- 14-pin accessory connector with BTL amplifier output

» IDAS™ Features

- IDAS multi-site/single site trunking
- IDAS conventional/multi-site conventional
- Individual and group selective call
- Talk back function and call mode selection
- Digital voice scrambler
- Status message and SDM (Short Data Message)
- Radio kill, stun and revive
- Call alert and radio check • Remote monitor
- Call log • RAN (Radio Access Number) code

» Analog FM Mode Features

- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- MDC 1200 compatible • Basic LTR™ trunking
- Built-in audio compander • Vote scan
- Built-in inversion voice scrambler

(* Depending on version)

IC-F3261DT IC-F4261DS

Supplied Accessories
(May differ according to version)

- Battery pack, BP-232WP • Antenna
- Belt clip, MB-94R

IC-F3161DT IC-F4161DS

VHF HANDHELD TRANSCEIVERS
IC-F3161DT/DS (5W)
IC-F3161T/S (5W)
IC-F3163T/S (5W)

UHF HANDHELD TRANSCEIVERS
IC-F4161DT/DS (5W)
IC-F4161T/S (5W)
IC-F4163T/S (5W)

IP55

- 136–174MHz, 5W
- 350–400, 400–470, 450–512, 450–520MHz, 5W
- FM intrinsically safe version

FM APPROVED
IS : Class I, II, III/ Div 1/ Groups DEFG/ T3C Ta = 40°C
NI : Class I/ Div 2/ Groups ABCD/ T3C Ta = 40°C

MULTI-MODE, MULTI-FEATURED PROFESSIONAL

Rugged MIL-STD 810
MDC 1200 Compatible
IP54
(Controller only)

IC-F5061D

VHF MOBILE TRANSCEIVERS
IC-F5061D (50W)
IC-F5061 (50W)
IC-F5063 (25W)

UHF MOBILE TRANSCEIVERS
IC-F6061D (45W)
IC-F6061 (45W)
IC-F6063 (25W)

» IDAS™ Features*

- IDAS multi-site/single site trunking
- IDAS conventional/multi-site conventional
- Individual and group selective call
- Talk back function and call mode selection
- Digital voice scrambler • Status message and SDM (Short Data Message)
- Radio kill, stun and revive • Call alert and radio check
- Remote monitor • Call log • RAN (Radio Access Number) code

* Optional UT-126H required. Already installed IC-F5061D/F6061D "D" versions.

» General Features

- 136–174MHz, 50W*
- 350–400, 400–470, 450–512, 450–520MHz, 45W*
- 512 memory channels with 128 zones • Surveillance function
- Backlit dot-matrix display • Power on password
- Detachable front panel (Optional RMK-3 and separation cable required)
- IP54 dust-protection and splash resistance (Controller only)
- MIL-STD rugged construction • DTMF autodial
- Front mounted speaker • Lone worker function
- D-SUB 25-pin accessory connector • Escalating alarm
- Ignition sensing line • Mode dependent scan

(* Depending on version)

» Analog FM Mode Features

- 2-Tone, 5-Tone, CTCSS and DTCS built-in • MDC 1200 compatible
- Basic LTR™ trunking • Built-in audio compander
- Radio kill, stun and revive function
- Wide/narrow channel spacing • Vote scan
- Optional voice scrambler UT-109R/UT-110R and built-in inversion voice scrambler

Supplied Accessories (May differ according to version)

- Hand microphone, HM-148G (IC-F5061/D) or HM-152 (IC-F5063)
- Mounting bracket kit • DC power cable • Key assign stickers • Microphone hanger

WATERPROOF MULTI-SITE TRUNKING RADIO

VHF HANDHELD TRANSCEIVERS
IC-F3230DT (5W)
IC-F3230DS (5W)

UHF HANDHELD TRANSCEIVERS
IC-F4230DT (4W)
IC-F4230DS (4W)

IDAS™ ICOM DIGITAL ADVANCED SYSTEM

Rugged MIL-STD 810
IP67

IC-F3230DT IC-F4230DS

» General Features

- 136–174MHz, 5W
- 350–400, 400–470, 450–512, 450–520MHz, 4W
- 128 memory channels and 8 zones
- 8 character alphanumeric display
- IP67, dust-tight and waterproof protection
- Operating time: Approximately 19/17 hours* with the BP-232WP battery pack
  * VHF/UHF, Tx: Rx: standby=5:5:90. Power save on.
- 53(W) × 120(H) × 37(D) mm compact body
- Lone worker function • Channel announcement function
- Surveillance function • Voting scan
- CTCSS and DTCS built-in (For analog FM)

IC-F3230DT/F4230DT is not available in some countries. (Not available in the USA.)

» IDAS™ Features

- IDAS multi-site/single site trunking
- IDAS conventional/multi-site conventional
- PTT ID and ANI • Block decode
- Up to 500 individual and up to 500 group ID aliases
- Status • SDM (Short Data Message)
- Stun/kill/revive (RX) • Call alert • Radio check (RX)
- Call alert and radio check (RX) • Remote monitor (RX)
- Call log • RAN (Radio Access Number) • Emergency
- Digital voice scrambler • ATB (All Trunks Busy) ring back
- Roaming Scan (Multi-site trunking)

Supplied Accessories (May differ or not supplied according to version)
- Battery pack, BP-232WP • Antenna • Belt clip, MB-94R
- Battery charger, BC-160* • AC adapter, BC-145SA/SE*

SIMPLE MULTI-SITE TRUNKING RADIO

VHF HANDHELD TRANSCEIVER
IC-F3210D (5W)

UHF HANDHELD TRANSCEIVER
IC-F4210D (4W)

IDAS™ ICOM DIGITAL ADVANCED SYSTEM

Rugged MIL-STD 810
IP54

IC-F3210D IC-F4210D

» General Features

- 136–174MHz, 5W
- 400–470, 450–512, 450–520MHz, 4W
- 16 memory channels • 3-color LED
- Operating time: Approximately 16–17.5 hours* with BP-265 battery pack
  * Tx: Rx: standby=5:5:90. Power save on.
- Channel announcement function
- 800mW (typical) loud speaker audio
- Internal VOX capability for hands-free operation
- IP54, dust-protection and water resistance
- Lone worker function • Surveillance function
- Voting scan • Optional GPS microphone, HM-171GP
- 58(W) × 111.5(H) × 36.5(D) mm compact body
- CTCSS and DTCS built-in (For analog FM)

» IDAS™ Features

- IDAS multi-site/single site trunking
- IDAS conventional/multi-site conventional
- PTT ID (TX) • Individual/Group call
- Block decode • RAN (Radio Access Number)
- Radio check (RX) • Stun/kill/revive (RX)
- Call alert (RX) • Remote monitor (RX)
- Emergency • Digital voice scrambler
- GPS (TX with HM-171GP) • ATB ring back
- Roaming Scan (Multi-site trunking)

Supplied Accessories (May differ according to version)
- Battery pack, BP-265 • Antenna • Belt clip, MB-124
- Battery charger, BC-193 • AC adapter, BC-123SA/SE*

WIDE-AREA COVERAGE WITH MULTI-SITE TRUNKING

VHF MOBILE TRANSCEIVER
IC-F5220D (50W)

UHF MOBILE TRANSCEIVER
IC-F6220D (45W)

IDAS™ ICOM DIGITAL ADVANCED SYSTEM

Rugged MIL-STD 810

IC-F5220D

» General Features

- 136–174MHz, 50W • 350–400, 400–470, 450–512, 450–520MHz, 45W
- 128 memory channels and 8 zones • 8 character alphanumeric display
- 4W (typical) front mounted speaker • Lone worker function
- Surveillance function • Voting scan
- GPS receiver connection with optional ACC cable
- Channel announcement function • Microphone hanger action programmable
- CTCSS and DTCS built-in (For analog FM)

» IDAS™ Features

- IDAS multi-site/single site trunking
- IDAS conventional/multi-site conventional
- PTT ID and ANI • Block decode
- Up to 500 individual and up to 500 group ID aliases
- Status • SDM (Short Data Message) • Call alert
- Radio check (RX) • Stun/kill/revive (RX)
- RAN (Radio Access Number) • Remote monitor (RX)
- Emergency • Digital voice scrambler
- ATB (All Trunks Busy) ring back • Roaming Scan (Multi-site trunking)

Supplied Accessories (May differ according to version)
- Hand microphone, HM-152 • Microphone hanger • Mounting bracket kit
- DC power cable • Key assign stickers

DIGITAL/ANALOG TWO-IN-ONE REPEATER

VHF REPEATER
IC-FR5000 (50W)

UHF REPEATER
IC-FR6000 (50W)

IC-FR5000

» General Features

- 136–174MHz, 50W
- 350–400, 400–470, 450–512, 450–520MHz, 50W
- 50W output power at 50% duty, 25W at 100% duty operation (Ambient temperature: 25˚C)
- 32 channel capacity and 5 programmable buttons
- 12-digit dot-matrix display
- 19-inch rack mount design, 2U height low profile design
- Two RF modules in one unit* (* UR-FR5000 or UR-FR6000 required.)
- Optional UR-PA5000 or UR-PA6000 power amplifier provides 100W output at 50% duty, 50W at 100% duty operation* (Ambient temperature: 25˚C) * UR-PA5000/UR-PA6000 is not available in some countries. (Not available in the USA.)
- Base station operation
- PC programmable via IP network* (* UC-FR5000 required)
- D-SUB 25-pin accessory connector
- CW-ID transmitter
- Normal and priority scan
- DTMF encode and decode
- ±0.5ppm high stability oscillator

» IDAS™ Features

- IDAS multi-site conventional with optional UC-FR5000 and CF-FR5000MC
- IDAS multi-site trunking with optional UC-FR5000 and CF-FR5000MT
- IDAS single site trunking with optional UC-FR5000
- IDAS conventional/FM mixed mode operation
- Digital RAN (Radio Access Number) code
- Digital voice scrambler • Individual and group selective call
- Talk back function and call mode selection
- Status message and SDM (Short Data Message)
- Radio kill, stun and revive (Tx only)
- Call alert and radio check • Remote monitor (Tx only)

» Analog FM Mode Features

- 5-Tone, CTCSS and DTCS built-in • Built-in audio compander
- Optional voice scrambler UT-109R/UT-110R and built-in inversion voice scrambler
- Low voltage alert

Supplied Accessories (May differ according to version)	• DC power cable • Key assign stickers

SINGLE-SITE TRUNKING/CONVENTIONAL RADIO

VHF HANDHELD TRANSCEIVERS
IC-F3101D (5W)
IC-F3103D (5W)

UHF HANDHELD TRANSCEIVERS
IC-F4101D (4W)
IC-F4103D (4W)

Limited functions only

VHF MOBILE TRANSCEIVERS
IC-F5121D (50W)
IC-F5123D (50W/25W)

UHF MOBILE TRANSCEIVERS
IC-F6121D (45W)
IC-F6123D (45W/25W)

Limited functions only

IC-F3101D

IC-F5121D

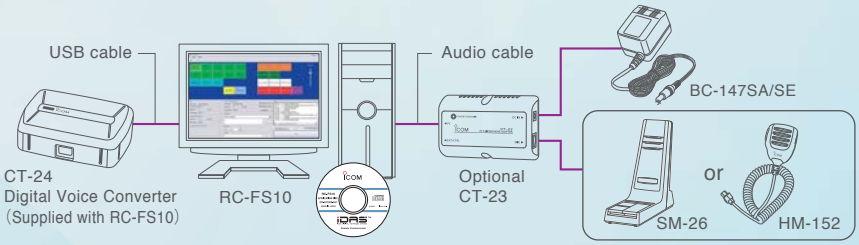
» Features

- 136–174, 350–400, 400–470, 450–512, 450–520MHz coverage
- 128 channels and 8 zones (IC-F5121D series)
  16 channels (IC-F3101D series)
- IDAS single site trunking
- IDAS conventional/multi-site conventional
- Digital/analog mixed mode operation
- Built-in 2-Tone, 5-Tone, CTCSS, DTCS and MDC 1200 signalling (For the analog FM mode)
- Channel announcement (IC-F3101D series)
- Optional GPS microphone, HM-171GP (IC-F3101D series)
- GPS receiver connection with optional ACC cable (IC-F5121D series)

VIRTUAL RADIO/PC DISPATCH

REMOTE COMMUNICATOR

RC-FS10



CT-24 Digital Voice Converter
(Supplied with RC-FS10)

CT-23 PTT Microphone Adapter

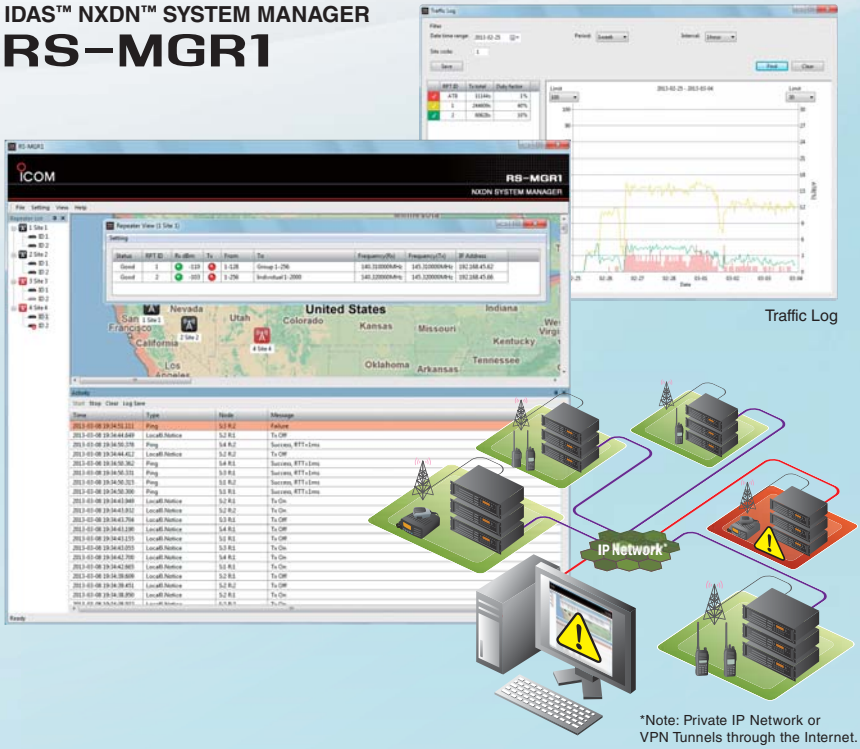
» Features

- The RC-FS10 is a remote communicator software for IDAS conventional, multi-site trunking and VE-PG3. It creates a virtual radio/simple dispatch station on a Windows®-based PC with the CT-24 digital voice converter and a microphone/speaker.
- Up to 8 different IDAS or VE-PG3 systems can be programmed
- Up to 40 function buttons are programmable, including individual call, group call, selective call, all call, status call, status polling, and so on
- Caller ID/alias name, called ID/alias name and call type information are displayed on the ANI area for easy recognition
- SDM (short data message), status message and DTMF code can be sent and received
- Communication log is displayed and can be stored
- The CT-24 digital voice converter is a USB device which converts microphone audio to the AMBE+2™ codec for the IDAS radio system. The remote communicator software will not work if the CT-24 is not connected.
- Optional CT-23 connects the HM-152 or SM-26 microphone audio (RJ-45 jack) and PTT/Monitor signals to the 3.5mm stereo jack for connection to a PC

REMOTE SYSTEM MANAGER SOFTWARE FOR IDAS™ MULTI-SITE TRUNKING SYSTEMS

IDAS™ NXDN™ SYSTEM MANAGER

RS-MGR1



Traffic Log

*Note: Private IP Network or
VPN Tunnels through the Internet.

» Features

- Repeater properties show condition summary, system information, interface (traffic statistics), repeater condition details (TX/RX PLL unlock, power supply voltage, internal temperature and fan status) and ping status of each repeater
- Registration log, communication log, traffic log and search log can be filtered by date, user ID, call type and site code*
  (* Filter items differ from log types)
- E-mail alert notification can be sent to the administrator if an alarm or disconnect occurs or clears
- The “Mesh ping status” shows the connectivity by sending ping commands in all combinations of repeater sites
- The “Version list” shows the repeaters firmware revision list
- The “Map window” shows repeater site icons laid out on an image file such as a map or network diagram
- USB flash drive containing the software and for the hardware key protection
- SR-VPN1 VPN router can be monitored on the RS-MGR1 by Syslog

READY FOR P25 TRUNKING AND P25 CONVENTIONAL

DIGITAL

VHF HANDHELD TRANSCEIVERS

IC-F9011T P25 Trunking/ Conventional ready
IC-F9011S P25 Trunking/ Conventional ready
IC-F9011B P25 Trunking/ Conventional ready
(6W)

UHF HANDHELD TRANSCEIVERS

IC-F9021T P25 Trunking/ Conventional ready
IC-F9021S P25 Trunking/ Conventional ready
IC-F9021B P25 Trunking/ Conventional ready
(5W)

P25 · Rugged MIL-STD 810 · IP57 · AES/DES option · MDC 1200 Compatible · FIPS VALIDATED 140-2

FIPS-140-2 with optional UT-125FIPS

» General Features

- 136–174MHz, 6W
- 380–470, 400–470, 450–520MHz, 5W
- 512 memory channels with 128 zones
- Dot-matrix, multi-function display*
- IP57 dust-protected and waterproof
- MIL-STD rugged construction
- Large capacity Lithium-Ion battery pack
- 4-way navigation cross keypad*
- ABC and toggle switches
- "Slim" 41.8mm (1.65 inch) dimensions
- 1000mW audio output even when used with optional speaker-microphone
- Programmable 14-pin accessory connector
- Built-in VOX • Tactical group function
- Internal clock • Lone worker function
- Optional man down unit, UT-124R
- Dual priority scan and mode dependent scan
- Busy channel lockout, repeater lockout and time-out timer
- Power on password • Talk around function

» P25 Conventional/Trunking

- P25 digital conventional
- P25 digital trunking
- Individual and talkgroup ID*
- Optional AES/DES encryption, UT-125
- Optional DES encryption , UT-128
- FIPS 140-2 level 1 encryption with optional UT-125 FIPS
- OTAR (Over-the-Air-Rekeying)
- AMBE+2™ enhanced vocoder ready
- Analog/Digital conventional dual mode scan

» Analog FM Mode Features

- 2-Tone, CTCSS and DTCS built-in
- Built-in audio compander
- DTMF autodial
- MDC 1200 compatible
- Built-in inversion voice scrambler

* IC-F9011T/S, F9021T/S only.

Supplied Accessories (May differ according to version)	• Battery pack, BP-254 • Antenna • Belt clip, MB-115

IC-F9021T IC-F9021S IC-F9011B

THE SMART MIGRATION TO P25 DIGITAL

P25 · FM APPROVED · AES/DES upgradable · Rugged MIL-STD 810 · IP57 · MDC 1200 Compatible · FIPS VALIDATED 140-2

FIPS-140-2 inside

DIGITAL

VHF HANDHELD TRANSCEIVERS

IC-F70DT P25 Conventional ready
IC-F70DS P25 Conventional ready
IC-F70T
IC-F70S
(5W)

UHF HANDHELD TRANSCEIVERS

IC-F80DT P25 Conventional ready
IC-F80DS P25 Conventional ready
IC-F80T
IC-F80S
(4W)

» General Features

- 136–174MHz, 5W
- 380–450, 400–470, 450–520MHz, 4W
- 256 memory channels with 32 zones
- Dot-matrix, multi-function display
- 500mW audio output
- FIPS 140-2 level 1 certified version
- IP57 dust-protected and waterproof
- Large capacity Lithium-Ion battery pack
- Built-in VOX function • Tactical group function
- FM intrinsically safe version
  IS : Class I, II, III/ Div 1/ Groups CDEFG ;
  NI : Class I/ Div 2/ Groups ABCD
  "Max. Temp. : T3C at 40°C"
  Connected battery pack : BP-254FM,
  Approved options: HM-138, HM-168IS, HS-94, HS-95, HS-97, VS-1SC,UT-109, UT-110, UT-124
- Optional man down unit, UT-124

» P25 Conventional/Trunking

- P25 digital conventional
- Optional AES/DES encryption with EX-2785 J02 (for DES) and EX-2785 J03 (for AES) activation software
- Individual and talkgroup ID
- Analog/Digital conventional dual mode scan

» Analog FM Mode Features

- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- Built-in audio compander
- DTMF autodial
- MDC 1200 compatible
- Built-in inversion voice scrambler
- Optional voice scrambler unit UT-109/UT-110

Supplied Accessories (May differ according to version)	• Battery pack, BP-253/BP-254 • Antenna • Belt clip, MB-94

IC-F70DT IC-F80DS

110W HIGH POWER, P25 TRUNKING AND P25 CONVENTIONAL

DIGITAL

VHF MOBILE TRANSCEIVER

IC-F9511HT

(110W)

P25 Trunking/ Conventional ready

AES/DES option

Rugged MIL-STD 810

FIPS VALIDATED 140-2

FIPS-140-2 with optional UT-125FIPS

IP54

MDC 1200 Compatible

IC-F9511HT

Photo includes optional RMK-4, OPC-607 and SP-30.

» General Features

- 136–174MHz, 110W at 20% duty cycle operation
- 512 memory channels with 128 zones
- Backlit dot-matrix display
- IP54 dust-protection and splash resistance (Controller and RF unit)
- MIL-STD rugged construction • Separated controller
- Dual head controller with optional RMK-4 and separation cable
- D-SUB 25-pin ACC connector with programmable pin assign
- 15W 9-pin speaker connector and optional external speaker, SP-30
- Self-grounding microphone, HM-148G
- Tactical group function • Internal clock • Lone worker function
- Dual priority scan and mode dependent scan
- Busy channel lockout, repeater lockout and time-out-timer
- On-hook scan and off-hook monitor
- Power on password • Talk around function

» P25 Conventional/Trunking Features

- P25 digital conventional • P25 digital trunking
- Individual and talkgroup ID
- Optional AES/DES encryption, UT-125
- Optional DES encryption, UT-128
- FIPS 140-2 level 1 encryption with optional UT-125 FIPS
- OTAR (Over-the-Air-Rekeying)
- AMBE+2™ enhanced vocoder ready
- Analog/Digital conventional dual mode scan

» Analog FM Mode Features

- 2-Tone, CTCSS and DTCS built-in
- Built-in audio compander
- DTMF autodial
- MDC 1200 compatible
- Built-in inversion voice scrambler

Supplied Accessories (May differ according to version)

- Hand microphone, HM-148G
- Controller unit
- Separation cable (5m)
- DC power cable
- Key assign stickers
- Microphone hanger
- Mounting bracket kit for main unit and controller
- Fuse • Crimp terminals
- Socket terminals

DIGITAL

IC-F1721D

P25 Rugged MIL-STD 810 AES/DES upgradable MDC 1200 Compatible

VHF MOBILE TRANSCEIVERS

IC-F1721D
IC-F1721

P25 Conventional ready

UHF MOBILE TRANSCEIVERS

IC-F2721D
IC-F2721

P25 Conventional ready

- P25 conventional mode • Powerful 50W (VHF), 45W (UHF) output
- Optional AES/DES digital encryption
- Built-in 5-Tone, 2-Tone, CTCSS, DTCS and MDC 1200 (Analog mode)
- Detachable controller with optional RMK-2 and separation cable
- Complementary model to the IC-F70/D series
- P25 upgrade is available for analog versions

(Optional UT-120 and EX-2785 J01 are required)

Supplied Accessories (May differ according to version)

- Hand microphone, HM-148G
- Mounting bracket kit
- Microphone hanger
- DC power cable
- Key assign stickers

READY FOR P25 TRUNKING/CONVENTIONAL

DIGITAL

VHF MOBILE TRANSCEIVERS

IC-F9511T (50W) P25 Trunking/ Conventional ready

IC-F9511S (50W) P25 Trunking/ Conventional ready

UHF MOBILE TRANSCEIVERS

IC-F9521T (50W) P25 Trunking/ Conventional ready

IC-F9521S (50W) P25 Trunking/ Conventional ready

P25 · AES/DES option · MDC 1200 Compatible · FIPS VALIDATED 140-2 (FIPS-140-2 with optional UT-125FIPS) · Rugged MIL-STD 810 · IP54 (Controller only)

IC-F9511S

IC-F9511T

» General Features

- 136–174MHz, 50W • 400–470, 450–512MHz, 50W
- 512 memory channels with 128 zones
- IP54 dust-protection and splash resistance (Controller only)
- Detachable controller with optional RMK-2 and separation cable
- D-SUB 25-pin ACC connector with programmable pin assign
- 22W BTL audio amplifier for PA function and RX speaker

» P25 Conventional/Trunking Features

- P25 digital conventional • P25 digital trunking
- Individual and talkgroup ID • Analog/Digital conventional dual mode scan
- Optional AES/DES encryption, UT-125 and DES encryption, UT-128
- FIPS 140-2 level 1 encryption with optional UT-125 FIPS
- OTAR (Over-the-Air-Rekeying)

Supplied Accessories (May differ according to version)	• Hand microphone, HM-148G • Microphone hanger • Mounting bracket kit • External speaker, SP-35* • DC power cable • Key assign stickers * IC-F9511T, IC-F9521T only.

DIGITAL

110W* FULL DUTY CYCLE P25 DIGITAL REPEATER

* 100W for UHF version.

VHF P25 REPEATER

IC-FR9010 (110W) P25 Conventional ready

UHF P25 REPEATER

IC-FR9020 (100W) P25 Conventional ready

P25 · Rugged MIL-STD 810

IC-FR9010

» General Features

- 146–174MHz, 110W • 440–475MHz, 100W
- 110W/100W (VHF/UHF) output power at 100% duty cycle operation
- 500 memory channels capacity and 16 key buttons
- 4-line × 20-character display • 5 color LEDs
- S-meter and output power bar graph display
- 19-inch rack mount design, 2U height low profile design
- Base station / repeater mode operation • Built-in speaker
- Simplex/Semi-duplex/Full-duplex operation • PC programmable
- D-SUB 25-pin accessory connector
- CW-ID transmitter • 280mA low standby current
- ±1.5ppm frequency stability • CTCSS and DTCS built-in
- P25 self test mode and key test mode
- Automatic error detection • High reliability, rugged construction

» P25 Conventional Features

- P25 digital conventional
- P25 conventional, analog FM and mixed mode operation
- Individual, group and all call
- Digital NAC (Network Access Code)
- Emergency • Call alert and radio check
- Radio inhibit (stun) and radio uninhibit (revive)
- Status update and status request
- SBC log (call log)

Supplied Accessories (May differ according to version)	• DC power cable connector

STANDARD MOBILE RADIO FOR B&I USE

VHF MOBILE TRANSCEIVERS

IC-F5021 (50W)
IC-F5023 (25W)
IC-F5023H (50W)

Rugged MIL-STD 810

MDC 1200 Compatible
Limited functions only

UHF MOBILE TRANSCEIVERS

IC-F6021 (45W)
IC-F6023 (25W)
IC-F6023H (45W)

IC-F5021

» Features

- 136–174MHz, 50W*
- 400–470, 450–512, 450–520MHz, 45W*
- 128 memory channels with 8 zones
- 8-character alphanumeric display
- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- MDC 1200 compatible (limited functions)
- 8 DTMF autodial memories
- External memory channel control, external device connection with optional ACC cable
- Tx channel setting and talk back function
- Priority scan functions
- 4W (typ.) front mounted speaker
- MIL-STD rugged construction
- Optional DTMF decoder, UT-108R
- Optional voice scrambler, UT-109R and UT-110

(* Depending on version)

Supplied Accessories

- Hand microphone, HM-152
- DC power cable
- Microphone hanger
- Mounting bracket kit
- Key assign stickers

PRACTICAL COMMUNICATIONS SUPPORTER

IC-F5011

VHF MOBILE TRANSCEIVERS

IC-F5011 (50W)
IC-F5013 (25W)
IC-F5013H (50W)

Rugged MIL-STD 810

MDC 1200 Compatible
Limited functions only

UHF MOBILE TRANSCEIVERS

IC-F6011 (45W)
IC-F6013 (25W)
IC-F6013H (45W)

» Features

- 136–174MHz, 50W*
- 400–470, 450–512, 450–520MHz, 45W*
- 8 memory channels
- 4 programmable buttons and LED lighting
- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- MDC 1200 compatible (limited functions)
- External memory channel control, external device connection with optional ACC cable
- DTMF autodial memories
- Tx channel setting and talk back function
- Priority scan functions
- 4W (typ.) front mounted speaker
- MIL-STD rugged construction
- Optional DTMF decoder, UT-108R
- Optional voice scrambler, UT-109R and UT-110R

(* Depending on version)

Supplied Accessories

- Hand microphone, HM-152
- DC power cable
- Microphone hanger
- Mounting bracket kit
- Key assign stickers

RADIO & PAGER, ALL-IN-ONE

VHF HANDHELD TRANSCEIVER
IC-F50V (5W)

UHF HANDHELD TRANSCEIVER
IC-F60V (4W)

Rugged MIL-STD 810 | IP67 | MDC 1200 Compatible

» Features

- 136–174MHz, 5W
- 400–470, 450–512, 450–520MHz, 4W
- 128 memory channels with 8 zones
- 8 minutes' recording function*
  (* Depending on version)
- Vibration alert function*
  (* Depending on version)
- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- MDC 1200 compatible
- Operating time: 9–10 hours*
  (approx. with BP-227 battery pack)
  * Tx: Rx: standby=5:5:90. Power save on.
- Mode dependent scan
- Priority scan functions
- 8 DTMF autodial memories
- 700mW (typ.) loud audio output with internal speaker
- MIL-STD rugged construction
- IP67, dust-tight and waterproof protection
- Built-in inversion voice scrambler
- Lone worker function for remote check in
- Nuisance delete function
- Audio compander
- 56(W)×97(H)×36.4(D) mm compact body

Supplied Accessories (May differ according to version)	• Battery pack, BP-227/BP-274 • Antenna • Belt clip, MB-98 • Key assign stickers

IC-F50V IC-F60V

IC-F3033T IC-F4031S

WATERPROOF STANDARD MODEL

VHF HANDHELD TRANSCEIVERS
IC-F3031S (5W)
IC-F3033T (5W)
IC-F3033S (5W)

UHF HANDHELD TRANSCEIVERS
IC-F4031S (4W)
IC-F4033T (4W)
IC-F4033S (4W)

Rugged MIL-STD 810 | IP67 | MDC 1200 Compatible

Limited functions only

» Features

- 136–174MHz, 5W
- 400–470, 450–512, 450–520MHz, 4W
- 128 memory channels with 8 zones
- 8 character alphanumeric display
- IP67, dust-tight and waterproof protection
- Operating time: 17.5 hours*
  (approx. with BP-232WP battery pack)
  * Tx: Rx: standby=5:5:90. Power save on.
- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- MDC 1200 compatible (limited functions)
- MIL-STD rugged construction
- 53(W)×120(H)×37(D) mm compact body
- Small and lightweight body (310g)
- Lone worker function
- Mode dependent scan
- Surveillance function
- 8 DTMF autodial memories
- Optional voice scrambler, UT-109R/UT-110R
- Optional man down unit, UT-124R
- Optional DTMF decoder, UT-108R

* Ten-key version, IC-F3033T/F4033T is not available in some countries. (Not available in the USA.)

Supplied Accessories (May differ according to version)	• Battery pack, BP-232WP • Antenna • Belt clip, MB-94

SIMPLE, HIGH PERFORMANCE RADIO

VHF HANDHELD TRANSCEIVERS

IC-F3001 (5W)

IC-F3003 (5W)

UHF HANDHELD TRANSCEIVERS

IC-F4001 (4W)

IC-F4003 (4W)

Rugged MIL-STD 810 | IP54 | MDC 1200 Compatible

Limited functions only

» Features

- 136–174MHz, 5W
- 350–400, 400–470, 450–512, 450–520MHz, 4W
- 16 memory channels
- 3-color LED
- Simple operation for instant communication
- 2-Tone, 5-Tone, CTCSS and DTCS built-in
- MDC 1200 PTT ID and emergency
- Operating time: 20 hours*
  (approx. with BP-265 battery pack)
  * Tx: Rx: standby=5:5:90. Power save on.
- Internal VOX capability for hands-free operation
- DTMF autodial memories
- Lone worker function
- Surveillance function
- 800mW (typ.) loud speaker audio
- MIL-STD rugged construction
- IP54, dust-protection and water resistance
- 58(W)×111(H)×35.5(D) mm compact body
- Low battery alert

Supplied Accessories (May differ or not supplied according to version)	• Battery pack* • Antenna • Belt clip, MB-124 • Battery charger* • AC adapter*

IC-F3001 IC-F4001

IC-F3011 IC-F4011

SIMPLE, RUGGED & RELIABLE

VHF HANDHELD TRANSCEIVER

IC-F3011 (5W)

UHF HANDHELD TRANSCEIVER

IC-F4011 (4W)

Rugged MIL-STD 810 | IP54

» Features

- 136–174MHz, 5W
- 400–470, 450–512MHz, 4W
- 16 memory channels
- 3-color LED
- Simple operation for instant communication
- CTCSS and DTCS built-in
- Operating time: 21 hours*
  (approx. with BP-232H battery pack)
  * Tx: Rx: standby=5:5:90. Power save on.
- Power on scan and priority scan
- MIL-STD rugged construction
- IP54, dust-protection and water resistance
- 53(W)×120(H)×38(D) mm compact body
- Rapid battery charger supplied
- Low battery alert with blinking LED and beep
- Talk around function
- Time-out-timer
- 2-step power save

Supplied Accessories (May differ according to version)	• Battery pack, BP-232H • Antenna • Belt clip, MB-94 • Battery charger, BC-160 • AC adapter, BC-145SA/SE

HF TRANSCEIVER

IC-F8101

Rugged MIL-STD 810

Controller attached type

Supplied Accessories
• HM-193 Microphone • Mic hanger kit • SP-35L External speaker • DC power cable • Fuse

AUTOMATIC TUNING ANTENNAS

AH-760 AH-740

Wide frequency type **Compact type**

Two types of high performance, automatic high-speed tuning antennas are available.

AH-760, Heavy-duty Moving Coil Antenna

- 200W PEP SSB, 125W PEP CW/DATA
- 1.6MHz–29.999MHz wide frequency coverage with the supplied whip antenna
- 350mS high-speed tuning (while memory tuning)
- Tested to IP68 and MIL-STD-810G environmental standards

AH-740, Relay-Driven Compact Antenna

- Relay-driven compact automatic tuning antenna
- Compact and lightweight (3.5kg)
- 150mS typical high-speed tuning (while memory tuning)
- Low power consumption (0.4A typical)
- Supplied accessories: Control cable and coaxial cable (Common to AH-760/AH-740)

AH-5NV NVIS (Near Vertical Incidence Skywave) Kit

- Fiberglass antenna element (4.5m; 14.8ft) for short range communication within approximately 500km* (* Depending on radio propagation conditions)

AH-760 AH-740

Above photos include mounting bases for photo shooting.

NVIS Kit (Option for AH-760 and AH-740)

AH-5NV

PLETE PACKAGE

Remote control microphone type*

Supplied Accessories
• HM-192 Remote control Mic • Mic hanger kit for HM-192 • Extention Mic connector • SP-35L External speaker • DC power cable • Fuse

Detached controller type*

Supplied Accessories
• HM-193 Microphone • Remote controller head • RMK-6 Separation kit • Mic hanger kit • SP-35L External speaker • DC power cable • Fuse

» Features

- RX: 0.5–29.9999MHz, TX: 1.6–29.9999MHz
- 125W* PEP output power (* J3E/A1A mode, depending on version)
- 100% duty cycle operation (normal conversation)
- SSB, AM, CW and Data mode* (* Depending on version)
- 500 memory channels, 500 selcall and 500 ALE channels
- FED-STD-1045A ALE standard; ALE individual call, net call, sounding and AMD (Automatic message display)
- CCIR493 based 4/6 digit open standards and 4/6 digit Icom scheme; Selcall, phone call, message call, status call, emergency call and channel test call
- Three types of controller configuration
- IP54 and MIL-STD-810 durable enclosed structure
- BITE (Built-in Test Equipment) function
- Administrator and user access feature
- Clear talk function
- USB port for PC programming
- Priority scan functions
- ±0.3ppm frequency stability
- RapidM TC4 HF data modem can be fit internally

HF TRANSCEIVER

IC-F7000

ADVANCED SELCALL AND ALE COMMUNICATION

- RX: 0.5–29.9999MHz, TX: 1.6–29.9999MHz
- 125W* PEP output power (* 1.6–3.9MHz, depending on version)
- SSB, AM, CW, FSK and AFSK mode* (* Depending on version)
- 400 memory channels, 100 ALE channels
- ALE individual call, net call, sounding and AMD (Automatic message display) MIL-STD 188-141-B
- 4/6 digit Selcall, beacon call, GPS beacon call, GPS position call, telcall, page call, status call, and emergency call
- Controller and speaker are separated from the main unit
- MIL-STD-810 rugged construction
- AT230 automatic tuning antenna

* IC-F7000 is not available in some countries. (Not available in the USA.)

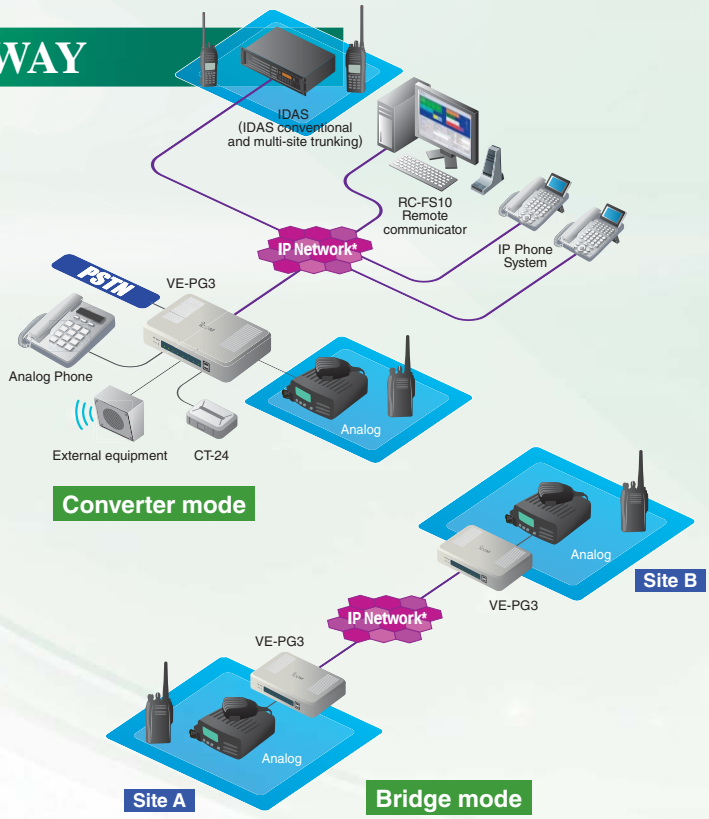
IC-F7000

Supplied Accessories	• HM-155 Hand microphone • SP-35L External speaker • RC-26 Remote controller • Microphone hanger • Mounting bracket kits • DC power cable • Spare fuse • ACC plugs • Tuner connector kit

VERSATILE RADIO OVER IP GATEWAY

RoIP GATEWAY
VE-PG3

VE-PG3



» Converter mode

- RoIP and SIP gateway functions
- Telephone interconnection with IP phone and PSTN lines
- Direct dialing from radio user is possible*
  (* Limited to radios with DTMF capability)

» Bridge mode

- Site-to-site radio communication over an IP network
- Site-to-multisite radio communication
- Cross band, cross category connection • Mixing function

» Common features

- IDAS and analog radio system cross band connection
- Optional CT-24 digital voice converter converts analog radio and G.711 μ-law codec to the AMBE+2™ codec for the IDAS radio system
- Option RC-FS10 software for virtual PC dispatch station
- Public address system, siren, warning light and external equipment can be connected to the VE-PG3
- The virtual serial port function for remote control connected radios or equipment from a PC over the IP network
- IP router function: PPPoE/IPv6 bridge, NAT, dynamic DNS, VPN pass through, IP filter, SNMP and SYSLOG
- USB flash drive connection for firmware updates and data backup

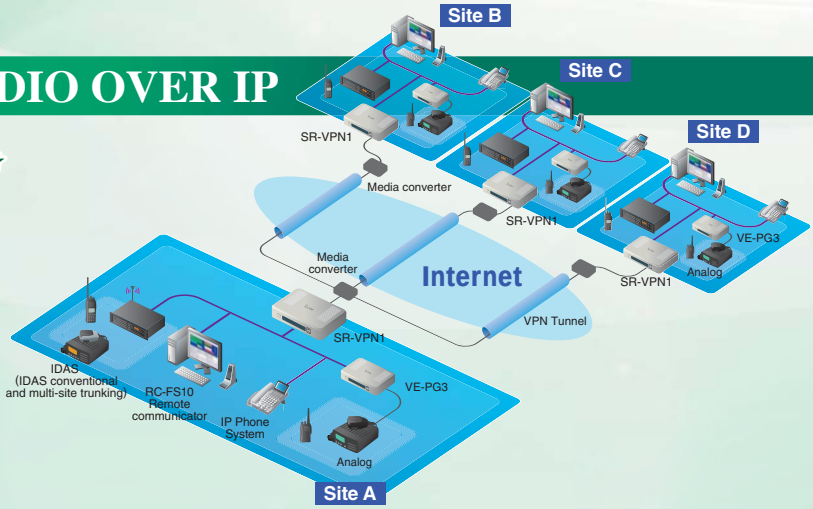
Supplied Accessories (May differ according to version)

- AC adapter, BC-207S • Ferrite core • Quick connectors (Spare)
- Virtual serial port software CD

SIMPLE VPN ROUTER FOR RADIO OVER IP

VPN ROUTER
SR-VPN1

SR-VPN1



» Features

- Up to 32 VPN IPsec VPN tunnels
- IPsec wizard focuses on the basic setting items for a VPN connection, and provides simple step-by-step instructions
- IPv4 multicast routing for VE-PG3
- High-speed 1000BASE-T gigabit Ethernet connection
- 4 gigabit LAN ports with switch function
- Dual WAN ports (main/sub) for automatic failover
- USB flash drive connection for firmware updates and data backup and restore
- Firmware updates also can be made via Internet connection
- Supports SNMP and Syslog messages for network monitoring

Broadband IP connection is separately required for Internet connection.
* SR-VPN1 is not available in some countries. (Not available in the USA.)

Supplied Accessories (May differ according to version)

- AC adapter, BC-207S

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	BATTERY PACKS								
	BP-227 (Li-Ion) 7.4V/1850mAh (min.) 1950mAh (typ.)	**BP-230N** (Li-Ion) 7.4V/950mAh (min.) 980mAh (typ.)	**BP-232FM** (Li-Ion) 7.4V/1900mAh (min.) 2000mAh (typ.) (For I/S models)	**BP-232H** (Li-Ion) 7.4V/2250mAh (min.) 2300mAh (typ.)	**BP-232WP** (Li-Ion) 7.4V/2250mAh (min.) 2300mAh (typ.)	**BP-253** (Li-Ion) 7.4V/1570mAh (min.) 1650mAh (typ.)	**BP-254** (Li-Ion) 7.4V/2900mAh (min.) 3040mAh (typ.)	**BP-254FM** (Li-Ion) 7.4V/2900mAh (min.) 3040mAh (typ.) (For I/S models)	**BP-264** (Ni-MH) 7.2V/1400mAh
IC-F9011T/S/B, IC-F9021T/S/B							✔		
IC-F70DT/DS, T/S IC-F80DT/DS, T/S						✔	✔	✔ (I/S models only)	
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS					✔				
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S		✔	✔ (I/S models only)	✔					
IC-F3230DT/DS, IC-F4230DT/DS					✔				
IC-F3210D, IC-F4210D									✔
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D									✔
IC-F50V, IC-F60V	✔								
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S					✔				
IC-F3011, IC-F4011		✔		✔					
IC-F3001, IC-F3003 IC-F4001, IC-F4003									✔

MODEL NAME	BATTERY PACKS		BATTERY CASES					CHARGERS	
	BP-265 (Li-Ion) 7.4V/1900mAh (min.) 2000mAh (typ.)	**BP-274** (Li-Ion) 7.4V/1800mAh (min.) 1900mAh (typ.)	**BP-226** LR6(AA)×5 cells	**BP-237** LR6(AA)×6 cells	**BP-240** LR03(AAA)×6 cells	**BP-261** LR6(AA)×6 cells	**BP-263** LR6(AA)×6 cells	**BC-119N** Rapid charger	**BC-152N** Regular charger
IC-F9011T/S/B, IC-F9021T/S/B				✔				✔ (AD-110 is required)	
IC-F70DT/DS, T/S IC-F80DT/DS, T/S				✔				✔ (AD-110 is required)	
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS					✔	✔		✔ (AD-106 is required)	
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S					✔			✔ (AD-106 is required)	
IC-F3230DT/DS, IC-F4230DT/DS					✔	✔		✔ (AD-106 is required)	
IC-F3210D, IC-F4210D	✔						✔		
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D	✔						✔		
IC-F50V, IC-F60V		✔	✔					✔ (AD-100 is required)	✔
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S					✔	✔		✔ (AD-106 is required)	
IC-F3011, IC-F4011					✔			✔ (AD-106 is required)	
IC-F3001, IC-F3003 IC-F4001, IC-F4003	✔						✔		

MODEL NAME	CHARGERS						MULTI-CHARGER	
	BC-160 Rapid charger	**BC-171** Regular charger	**BC-190** Rapid charger	**BC-191** Rapid charger (for BP-264)	**BC-192** Regular charger (for BP-264)	**BC-193** Rapid charger (for BP-265)	**BC-121N**	**BC-197** *1
IC-F9011T/S/B, IC-F9021T/S/B							✔ (AD-110 is required)	
IC-F70DT/DS, T/S IC-F80DT/DS, T/S							✔ (AD-110 is required)	
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔	✔					✔ (AD-106 is required)	✔ (AD-122 is required)
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S	✔	✔					✔ (AD-106 is required)	✔ (AD-122 is required)
IC-F3230DT/DS, IC-F4230DT/DS	✔	✔					✔ (AD-106 is required)	✔ (AD-122 is required)
IC-F3210D, IC-F4210D				✔	✔	✔		✔ (AD-120 or AD-121 is required)
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D				✔	✔	✔		✔ (AD-120 or AD-121 is required)
IC-F50V, IC-F60V			✔				✔ (AD-100 is required)	
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S	✔	✔					✔ (AD-106 is required)	✔ (AD-122 is required)
IC-F3011, IC-F4011	✔	✔					✔ (AD-106 is required)	✔ (AD-122 is required)
IC-F3001, IC-F3003 IC-F4001, IC-F4003				✔	✔	✔		✔ (AD-120 or AD-121 is required)

*1 Either AD-120, AD-121 or AD-122 is supplied with the BC-197.

✔ : Applicable ☐ : Not applicable

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	CHARGER ADAPTERS					AC ADAPTERS			
	AD-100 For BP-227/274	**AD-106** For BP-230N/232H/ WP/FM	**AD-110** For BP-253/254/FM	**AD-120** For BP-264 **AD-121** For BP-265	**AD-122** For BP-230N/232H/ 232WP/232FM	**BC-123S** *2 12V/1A	**BC-145S** *2 16V/0.93A	**BC-147S** *2 12V/200mA	**BC-157S** 12V/6.6A
				(Photo shows AD-121)					
IC-F9011T/S/B, IC-F9021T/S/B			✔ (Use with BC-119N/BC-121N)				✔ (Use with BC-119N)		✔ (Use with BC-121N)
IC-F70DT/DS, T/S IC-F80DT/DS, T/S			✔ (Use with BC-119N/BC-121N)				✔ (Use with BC-119N)		✔ (Use with BC-121N)
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS		✔ (Use with BC-119N/BC-121N)			✔ (Use with BC-197)		✔ (Use with BC-119N or BC-160)	✔ (Use with BC-171)	✔ (Use with BC-121N or BC-197)
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S		✔ (Use with BC-119N/BC-121N)			✔ (Use with BC-197)		✔ (Use with BC-119N or BC-160)	✔ (Use with BC-171)	✔ (Use with BC-121N or BC-197)
IC-F3230DT/DS, IC-F4230DT/DS		✔ (Use with BC-119N/BC-121N)			✔ (Use with BC-197)		✔ (Use with BC-119N or BC-160)	✔ (Use with BC-192)	✔ (Use with BC-121N or BC-197)
IC-F3210D, IC-F4210D				✔ (Use with BC-197)		✔ (Use with BC-191 or BC-193)		✔ (Use with BC-192)	✔ (Use with BC-197)
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D				✔ (Use with BC-197)		✔ (Use with BC-191 or BC-193)		✔ (Use with BC-192)	✔ (Use with BC-197)
IC-F50V, IC-F60V	✔ (Use with BC-119N/BC-121N)					✔ (Use with BC-190)	✔ (Use with BC-119N)	✔ (Use with BC-152N)	✔ (Use with BC-121N)
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S		✔ (Use with BC-119N/BC-121N)			✔ (Use with BC-197)		✔ (Use with BC-119N or BC-160)	✔ (Use with BC-171)	✔ (Use with BC-121N or BC-197)
IC-F3011, IC-F4011		✔ (Use with BC-119N/BC-121N)			✔ (Use with BC-197)		✔ (Use with BC-119N or BC-160)	✔ (Use with BC-171)	✔ (Use with BC-121N or BC-197)
IC-F3001, IC-F3003 IC-F4001, IC-F4003				✔ (Use with BC-197)		✔ (Use with BC-191 or BC-193)		✔ (Use with BC-192)	✔ (Use with BC-197)

MODEL NAME	SPEAKER-MICROPHONES							
	HM-131SC	**HM-138** IPX7	**HM-158LA**	**HM-159LA/SC**	**HM-168/LWP** **HM-168IS** (For IS models) IPX7	**HM-169** **HM-169IS** (For IS models) IP67	**HM-170GP** IP57 GPS	**HM-171GP** IP54 GPS	**HM-184/H** IP67
				(Photo shows HM-159LA)	(Photo shows HM-168)	(Photo shows HM-169)			
IC-F9011T/S/B, IC-F9021T/S/B									✔
IC-F70DT/DS, T/S IC-F80DT/DS, T/S		✔			✔ (Use HM-168/IS)	✔ (Use HM-169)			
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS									✔
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S	✔			✔ (Use HM-159SC)	✔ (Use HM-168)	✔	✔		
IC-F3230DT/DS, IC-F4230DT/DS			✔	✔ (Use HM-159LA)	✔ (Use HM-168LWP)				
IC-F3210D, IC-F4210D			✔	✔ (Use HM-159LA)				✔	
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D			✔	✔ (Use HM-159LA)				✔	
IC-F50V, IC-F60V		✔			✔ (Use HM-168)	✔ (Use HM-169)	✔		
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S			✔	✔ (Use HM-159LA)	✔ (Use HM-168LWP)				
IC-F3011, IC-F4011			✔	✔ (Use HM-159LA)					
IC-F3001, IC-F3003 IC-F4001, IC-F4003			✔	✔ (Use HM-159LA)					

MODEL NAME	EARPHONE-MICROPHONES		HEADSETS			VOX/PTT CASE	PLUG ADAPTER CABLE	EARPHONES	
	HM-153LA	**HM-166LA**	**HS-94** Earhook type with boom microphone	**HS-95** Behind-the-head type	**HS-97** Throat microphone type	**VS-1L/SC/MC**	**OPC-2004**	**SP-13**	**SP-27**
						(Photo shows VS-1L)			
IC-F9011T/S/B, IC-F9021T/S/B			✔ (Use with VS-1MC)	✔ (Use with VS-1MC)	✔ (Use with VS-1MC)	✔ (Use VS-1MC)			
IC-F70DT/DS, T/S IC-F80DT/DS, T/S			✔ (Use with VS-1SC)	✔ (Use with VS-1SC)	✔ (Use with VS-1SC)	✔ (Use VS-1SC)			
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS									
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S			✔ (Use with VS-1SC)	✔ (Use with VS-1SC)	✔ (Use with VS-1SC)	✔ (Use VS-1SC)		✔ (Use with AD-52)	✔ (Use with AD-52)
IC-F3230DT/DS, IC-F4230DT/DS		✔							
IC-F3210D, IC-F4210D			✔ (Use with OPC-2004)	✔ (Use with OPC-2004)	✔ (Use with OPC-2004)		✔		✔
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D			✔ (Use with OPC-2004)	✔ (Use with OPC-2004)	✔ (Use with OPC-2004)		✔		✔
IC-F50V, IC-F60V			✔ (Use with VS-1SC)	✔ (Use with VS-1SC)	✔ (Use with VS-1SC)	✔ (Use VS-1SC)			
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S	✔	✔						✔	✔
IC-F3011, IC-F4011	✔	✔	✔ (Use with VS-1L)	✔ (Use with VS-1L)	✔ (Use with VS-1L)	✔ (Use VS-1L)		✔	✔
IC-F3001, IC-F3003 IC-F4001, IC-F4003			✔ (Use with OPC-2004)	✔ (Use with OPC-2004)	✔ (Use with OPC-2004)		✔		✔

*2 BC-123/BC-145/BC-147SA for 120V DC. SE for 230V DC. SV for 240V AC.
Some options may not be available in some countries. Please ask your dealer for details.

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	EARPHONE ADAPTER	ACC ADAPTER	BELT CLIPS						
	AD-52	**AD-118** Allows you to use 6-pin Hirose plug accessories	**MB-86** Swivel type	**MB-93** Swivel type	**MB-94** Alligator type	**MB-94R** Alligator type	**MB-98** Alligator type	**MB-115** Alligator type	**MB-124** Alligator type
IC-F9011T/S/B, IC-F9021T/S/B		✔						✔	
IC-F70DT/DS, T/S IC-F80DT/DS, T/S				✔	✔	✔			
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS		✔		✔	✔	✔			
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S	✔			✔	✔	✔			
IC-F3230DT/DS, IC-F4230DT/DS				✔	✔	✔			
IC-F3210D, IC-F4210D									✔
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D									✔
IC-F50V, IC-F60V			✔				✔		
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S				✔	✔	✔			
IC-F3011, IC-F4011				✔	✔	✔			
IC-F3001, IC-F3003 IC-F4001, IC-F4003									✔

MODEL NAME	CHARGER BRACKET	LEATHER BELT HANGERS		CIGARETTE LIGHTER CABLE	DC POWER CABLES		ZONE COPY CABLES	
	MB-130	**MB-96N** Swivel type	**MB-96F** Fixed type	**CP-23L**	**OPC-656**	**OPC-515L**	**OPC-1533** Handheld to mobile **OPC-1536** Handheld to handheld	**OPC-1871** Handheld to mobile **OPC-1870** Handheld to handheld
IC-F9011T/S/B, IC-F9021T/S/B				✔ (Use with BC-119N)	✔ (Use with BC-121N)	✔ (Use with BC-119N)		✔
IC-F70DT/DS, T/S IC-F80DT/DS, T/S		✔	✔	✔ (Use with BC-119N)	✔ (Use with BC-121N)	✔ (Use with BC-119N)	✔	
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔ (Use with BC-160)	✔	✔	✔ (Use with BC-119N or BC-160)	✔ (Use with BC-121N or BC-197)	✔ (Use with BC-119N)		✔
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S	✔ (Use with BC-160)	✔	✔	✔ (Use with BC-119N or BC-160)	✔ (Use with BC-121N or BC-197)	✔ (Use with BC-119N)		
IC-F3230DT/DS, IC-F4230DT/DS	✔ (Use with BC-160)	✔	✔	✔ (Use with BC-119N or BC-160)	✔ (Use with BC-121N or BC-197)	✔ (Use with BC-119N)		
IC-F3210D, IC-F4210D	✔ (Use with BC-191/192/193)			✔ (Use with BC-191 or BC-193)	✔ (Use with BC-197)	✔ (Use with BC-191, BC-192 or BC-193)		
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D	✔ (Use with BC-191/192/193)			✔ (Use with BC-191 or BC-193)	✔ (Use with BC-197)	✔ (Use with BC-191, BC-192 or BC-193)		
IC-F50V, IC-F60V	✔ (Use with BC-190)	✔	✔	✔ (Use with BC-119N or BC-190)	✔ (Use with BC-121N)	✔ (Use with BC-119N)		
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S	✔ (Use with BC-160)	✔	✔	✔ (Use with BC-119N or BC-160)	✔ (Use with BC-121N or BC-197)	✔ (Use with BC-119N)		
IC-F3011, IC-F4011	✔ (Use with BC-160)	✔	✔	✔ (Use with BC-119N or BC-160)	✔ (Use with BC-121N or BC-197)	✔ (Use with BC-119N)		
IC-F3001, IC-F3003 IC-F4001, IC-F4003	✔ (Use with BC-191/192/193)			✔ (Use with BC-191 or BC-193)	✔ (Use with BC-197)	✔ (Use with BC-191, BC-192 or BC-193)		

MODEL NAME	ANTENNAS			HIGH GAIN ANTENNAS	CUT ANTENNAS		STUBBY ANTENNAS	
	FA-SC25V 136–150MHz **FA-SC55V** 150–174MHz **FA-SC25U** 400–430MHz **FA-SC57U** 430–470MHz **FA-SC72U** 470–520MHz **FA-SC01U** 350–400MHz **FA-SC02U** 330–380MHz **FA-SC03U** 380–430MHz **FA-SC04U** 330–380MHz	**FA-S24V** 136–150MHz **FA-S59V** 150–174MHz **FA-S27U** 400–470MHz **FA-S56U** 450–520MHz **FA-S74U** 490–520MHz	**FA-S25V** 136–148MHz **FA-S65V** 148–160MHz **FA-S66V** 160–174MHz **FA-S30U** 380–430MHz **FA-S58U** 430–470MHz **FA-S75U** 470–520MHz	**FA-SC62V** 150–160MHz **FA-SC63V** 155–165MHz	**FA-SC61VC** 136–174MHz **FA-SC61UC** 380–520MHz	**FA-S67VC** 136–174MHz **FA-S76UC** 380–520MHz	**FA-SC56VS** 150–162MHz **FA-SC57VS** 160–174MHz **FA-SC73US** 450–490MHz	**FA-S62VS** 150–162MHz **FA-S63VS** 160–174MHz **FA-S57US** 450–490MHz
IC-F9011T/S/B, IC-F9021T/S/B			✔			✔		
IC-F70DT/DS, T/S IC-F80DT/DS, T/S	✔			✔	✔		✔	
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔			✔	✔		✔	
IC-F3161DT/DS, T/S, F3163T/S IC-F4161DT/DS, T/S, F4163T/S	✔			✔	✔		✔	
IC-F3230DT/DS, IC-F4230DT/DS	✔			✔	✔		✔	
IC-F3210D, IC-F4210D	✔			✔	✔		✔	
IC-F3101D, IC-F3103D IC-F4101D, IC-F4103D	✔			✔	✔		✔	
IC-F50V, IC-F60V		✔						✔
IC-F3031S, IC-F3033T/S IC-F4031S, IC-F4033T/S	✔			✔	✔		✔	
IC-F3011, IC-F4011	✔			✔	✔		✔	
IC-F3001, IC-F3003 IC-F4001, IC-F4003	✔			✔	✔		✔	

Some options may not be available in some countries. Please ask your dealer for details.

✔ : Applicable ☐ : Not applicable

OPTIONS FOR MOBILE TRANSCEIVERS AND REPEATERS

MODEL NAME	SEPARATION KITS			SEPARATION CABLES	HAND MICROPHONES				DESKTOP MICROPHONE
	RMK-2	**RMK-3**	**RMK-4** Dual-head	**OPC-608** (8m; 26.2ft) **OPC-726** (5m; 16.4ft) **OPC-607** (3m; 9.8ft) **OPC-609** (1.9m; 6.2ft)	**HM-152**	**HM-152T** DTMF keypad type	**HM-148G** Heavy-duty type	**HM-148T** Heavy-duty type With DTMF keypad	**SM-26**
IC-F9511HT			✔	✔	✔	✔	✔	✔	✔
IC-F9511T/S, IC-F9521T/S	✔			✔	✔	✔	✔	✔	✔
IC-F1721/D, IC-F2721/D	✔			✔	✔	✔	✔	✔	✔
IC-F5061/D, IC-F5063 IC-F6061/D, IC-F6063		✔		✔	✔	✔	✔	✔	✔
IC-F5220D, IC-F6220D					✔	✔	✔	✔	✔
IC-F5121D, IC-F5123D IC-F6121D, IC-F6123D					✔	✔	✔	✔	✔
IC-F5021, IC-F5023/H IC-F6021, IC-F6023/H					✔	✔	✔	✔	✔
IC-F5011, IC-F5013/H IC-F6011, IC-F6013/H					✔	✔	✔	✔	✔
IC-FR5000, IC-FR6000					✔				✔
IC-FR9010, IC-FR9020									

MODEL NAME	ACC CABLES				ZONE COPY CABLES		EXTERNAL SPEAKERS		DC POWER CABLES
	OPC-617 9-pin type	**OPC-1939** 15-pin type	**OPC-2078** 25-pin type	**OPC-2202** For connection with UR-PA5000/ PA6000	**OPC-1532** Mobile to mobile **OPC-1533** Mobile to handheld	**OPC-1532** Mobile to mobile **OPC-1871** Mobile to handheld	**SP-30**	**SP-35** (With 2m; 6.5ft cable) **SP-35L** (With 6m; 19.7ft cable)	**OPC-1132A** (3m; 9.8ft) **OPC-347** (7m; 23ft)
IC-F9511HT						✔	✔	✔	
IC-F9511T/S, IC-F9521T/S						✔	✔	✔	✔
IC-F1721/D, IC-F2721/D	✔				✔		✔	✔	✔
IC-F5061/D, IC-F5063 IC-F6061/D, IC-F6063							✔	✔	✔
IC-F5220D, IC-F6220D		✔*	✔*				✔	✔	✔
IC-F5121D, IC-F5123D IC-F6121D, IC-F6123D		✔*	✔*				✔	✔	✔
IC-F5021, IC-F5023/H IC-F6021, IC-F6023/H		✔	✔					✔	✔
IC-F5011, IC-F5013/H IC-F6011, IC-F6013/H		✔	✔				✔	✔	✔
IC-FR5000, IC-FR6000				✔				✔	
IC-FR9010, IC-FR9020									

* No digital modulation "IN" using accessory cables.

MODEL NAME	CHANNEL MODULES	POWER AMPLIFIER	TRUNKING/NETWORK CONTROLLER	IDAS SOFTWARE	
	UR-FR5000 (136–174MHz, 50W) **UR-FR6000** (400–470, 450–520MHz, 50W)	**UR-PA5000** (136–174MHz, 100W 50% duty, 50W 100% duty) **UR-PA6000** (400–470, 450–520MHz, 100W 50%, 50W 100% duty)	**UC-FR5000**	**CF-FR5000MC** Multi-site conventional software for UC-FR5000	**CF-FR5000MT** Multi-site trunking software for UC-FR5000
IC-F9511HT					
IC-F9511T/S, IC-F9521T/S					
IC-F1721/D, IC-F2721/D					
IC-F5061/D, IC-F5063 IC-F6061/D, IC-F6063					
IC-F5220D, IC-F6220D					
IC-F5121D, IC-F5123D IC-F6121D, IC-F6123D					
IC-F5021, IC-F5023/H IC-F6021, IC-F6023/H					
IC-F5011, IC-F5013/H IC-F6011, IC-F6013/H					
IC-FR5000, IC-FR6000	✔	✔*	✔	✔ (Use with UC-FR5000)	✔ (Use with UC-FR5000)
IC-FR9010, IC-FR9020					

Some options may not be available in some countries. Please ask your dealer for details. * Not available in some countries. (Not available in the USA.)

✔ : Applicable [ ] : Not applicable

OPTIONS FOR HF TRANSCEIVERS

MODEL NAME	HAND MICROPHONES		REMOTE CONTROL MIC	SEPARATION KIT	SEPARATION CABLES	AUTOTUNING ANTENNAS		FOLDED DIPOLE ANTENNA	NVIS KIT
	HM-155	**HM-193**	**HM-192**	**RMK-6** For controller attached version	**OPC-608** (8m; 26.2ft) **OPC-726** (5m; 16.4ft) **OPC-607** (3m; 9.8ft) **OPC-609** (1.9m; 6.2ft)	**AH-760** 1.6–30MHz Wide frequency type.	**AH-740** 2.5–30MHz Compact type	**AH-710** approx. 24.5 m; 80.3 ft 30 m; 98.4 ft	**AH-5NV**
IC-F8101		✔	✔	✔	✔	✔	✔		✔ (Use with AH-760/AH-740)
IC-F7000	✔							✔	

MODEL NAME	ANTENNA ELEMENT	ANTENNA TUNER	ANTENNA MATCHERS		SHIELDED CONTROL CABLES			EXTERNAL SPEAKERS	GPS/MODEM CABLE
	AH-2b	**AT-140**	**MN-100**	**MN-100L**	**OPC-2309** 10m; 32.8ft	**OPC-1286/N** 10m; 32.8ft	**OPC-1287** 5m; 16.4ft	**SP-35** (With 2m; 6.5ft cable) **SP-35L** (With 6m; 19.7ft cable)	**OPC-2308**
IC-F8101	✔ (Use with AT-140)	✔			✔ (Use with AT-140)			✔	✔
IC-F7000	✔ (Use with AT-140)	✔	✔	✔		✔ (Use with AT-140)	✔ (Use with AT230)	✔	

MODEL NAME	MOUNTING BRACKET	COOLING FAN	REMOTE CONTROLLER
	MB-126	**CFU-F8100**	**RC-26**
IC-F8101	✔	✔	
IC-F7000			✔

Recommended Option	Third Party Products	
Moonraker Australia Pty. Limited **AT230** 2–30MHz coverage	RapidM internal TC4 Modem and Email Software	**SCS PACTOR III**
	✔	✔
✔		

Some options may not be available in some countries. Please ask your dealer for details.

OPTIONS FOR RoIP AND VPN ROUTER

MODEL NAME	AC ADAPTER	AUDIO CONNECTION CABLES				DIGITAL VOICE CONVERTER	SERIAL CABLE
	BC-207S 12V/3.5A	**OPC-2273** For IC-M604A VHF marine transceiver 5m; 16.4ft	**OPC-2274** For IC-FR5000 series 5m; 16.4ft	**OPC-2275** For mobile transceiver 5m; 16.4ft	**OPC-2276** For HM-152 or SM-26 5m; 16.4ft	**CT-24**	**OPC-1402A** (For maintenance use)
VE-PG3	✔	✔	✔	✔	✔	✔	
SR-VPN1	✔						✔

Some options may not be available in some countries. Please ask your dealer for details.

SPECIFICATIONS FOR HANDHELD TRANSCEIVERS

				IC-F9011T/S/B	IC-F9021T/S/B	IC-F70DT/DS IC-F70T/S	IC-F80DT/DS IC-F80T/S	IC-F3261DT/DS IC-F3263DT/DS	IC-F4261DT/DS IC-F4263DT/DS	IC-F3161DT/DS IC-F3161T/S IC-F3163T/S	IC-F4161DT/DS IC-F4161T/S IC-F4163T/S
GENERAL	Frequency coverage (Unit: MHz) (Varies according to version)			136–174	380–470 400–470 450–520	136–174	380–450 400–470 450–520	136–174	400–470 450–512 (USA) 450–520 (EXP) 350–400 (EXP)	136–174	400–470 450–512 (USA) 450–520 (EXP) 350–400 (EXP)
	Number of channels (Max.)			512 ch/128 zones		256 ch/32 zones		512 ch/128 zones		512 ch/128 zones	
	Type of emission			16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D		16K0F3E, 11K0F3E, 8K10F1E*, 8K10F1D* (* Digital, depending on version)		16K0F3E, 11K0F3E, 8K50F3E, 4K00F1E/F1D		16K0F3E, 11K0F3E, 11K0F7E/D, 8K50F3E, 8K10F1E/D, 4K00F1E/D* (* Digital, depending on version)	
	Channel spacing (Unit: kHz) (Varies according to version)			12.5 (digital), 15/30 (analog)	12.5 (digital), 12.5/25 (analog)	12.5/25, 15/30	12.5/25	6.25/12.5/25, 6.25/15	6.25/12.5/25, 6.25/12.5	12.5/25, 15/30 6.25 (With UT-126H)	12.5/25, 6.25 (With UT-126H)
	Current drain	Tx	High	2.2A	2.1A	2.2A	2.4A	1.7A	1.8A	1.5A	1.8A
		Rx	Stand-by	300mA	300mA	150mA	150mA	160mA	160mA	150mA	140mA
			Max. audio	800mA	800mA	450mA	450mA	550mA	550mA	600mA	600mA
	Dimensions (projections not included; W×H×D)			58.6×167×41.8mm 2.31×6.57×1.65 in		58.6×152×42.2mm 2.31×5.98×1.66 in		53.5×142.7×39.5mm 2.11×5.62×1.56 in (with BP-232WP)		53×136×38.5mm 2.09×5.35×1.52 in (With BP-232H)	
	Weight (approx.)			533g; 1.17lb (With BP-254)		400g; 14.1oz (With BP-253) 450g; 15.9oz (with BP-254)		410g; 14.5oz (with BP-232WP, MB-94R & ant.)	400g; 14.1oz (with BP-232WP, MB-94R & ant.)	340g; 12.0oz (With BP-232H)	
TX	RF output power (High)			6W	5W	5W	4W	5W	5W	5W	5W
	Spurious emissions			75dB typ.	80dB typ.	70dB typ.		78dB typ.		75dB typ.	
	Frequency stability			±1.0ppm		±2.0ppm		±1.0ppm		±1.0ppm	
RX	Sensitivity		(at 12dB SINAD)	0.25µV typ.		0.25µV typ.		0.23µV typ.		0.25µV typ.	
			(at 5% BER)	0.30µV typ.		0.25µV typ.		0.20µV typ.		0.20µV typ.	
	Adjacent Ch. selectivity		FM (W/N)	75/48dB typ.	75/50dB typ.	80/73dB typ.	78/70dB typ.	78/68dB typ.	75/68dB typ.	75/68dB typ.	
			Digital	60dB typ.	60dB typ.	60dB typ.	60dB typ.	60dB typ.	60dB typ.	–	
	Spurious response rejection			80dB typ.		80dB typ.	75dB typ.	76dB typ.		70dB min.	
	Intermodulation rejection			75dB typ.		75dB typ.		75dB typ. (FM), 66dB typ. (Digital)		74dB typ.	
	AF output power (at 5% distortion with an 8Ω load)			1000mW typ. (at 10% distortion)		500mW typ. (at 10% distortion)		800mW typ. (Internal SP, 12Ω load) 1000mW typ. (External SP)		500mW typ. (External SP)	

				IC-F3230DT/DS	IC-F4230DT/DS	IC-F3210D	IC-F4210D	IC-F3101D IC-F3103D	IC-F4101D IC-F4103D	IC-F50V	IC-F60V
GENERAL	Frequency coverage (Unit: MHz) (Varies according to version)			136–174	350–400 400–470 450–512 (USA) 450–520 (EXP)	136–174	400–470 450–512 (USA) 450–520 (EXP)	136–174	350–400 (EXP) 400–470 450–512 (USA) 450–520 (EXP)	136–174	400–470 450–512 (USA) 450–520 (EXP)
	Number of channels (Max.)			128 ch/8 zones		16 ch		16 ch		128 ch/8 zones	
	Type of emission			16K0F3E*, 11K0F3E, 8K50F3E, 4K00F1E/F1D		16K0F3E*, 11K0F3E, 8K50F3E, 4K00F1E/F1D		16K0F3E, 11K0F3E,8K50F3E, 4K00F1E/F1D		16K0F3E, 11K0F3E	
	Channel spacing (Unit: kHz) (Varies according to version)			6.25/12.5/15/25*kHz		6.25/12.5/15/25*kHz		6.25/12.5/25, 6.25/15/30	6.25/12.5/25	12.5/25, 15/30	12.5/25
	Current drain	Tx	High	1.3A	1.3A	1.3A	1.3A	1.3A	1.3A	1.8A	1.8A
		Rx	Stand-by	100mA	100mA	90mA	100mA	90mA	100mA	85mA	85mA
			Max. audio	400mA	400mA	400mA	400mA	400mA	400mA	500mA	500mA
	Dimensions (projections not included; W×H×D)			53×120×37mm 2.09×4.72×1.46 in (With BP-232WP)		58×111.5×36.5mm 2.28×4.39×1.44 in (With BP-265)		58×111.5×36.5mm 2.28×4.39×1.44 in (With BP-265)		56×97×36.4mm 2.2×3.82×1.43 in (With BP-227)	
	Weight (approx.)			340g; 12oz (With MB-94R, BP-232WP & ant.)		320g; 11.3oz (With MB-124, BP-265 & ant.)	310g; 10.9oz (With MB-124, BP-265 & ant.)	320g; 11.3oz (With BP-265, MB-124 & ant.)	310g; 10.9oz (With BP-265, MB-124 & ant.)	280g; 9.9oz (With BP-227)	284g; 10.0oz (With BP-227)
TX	RF output power (High)			5W	4W	5W	4W	5W	4W	5W	4W
	Spurious emissions			75dB typ.		75/71dB typ. (W/N)	75dB typ.	70dB min.		70dB typ.	70dB min.
	Frequency stability			±1.0ppm		±1.0ppm		±1.0ppm		±2.5ppm	
RX	Sensitivity		(at 12dB SINAD)	0.23µV typ.	0.24µV typ.	0.23µV typ.	0.22µV typ.	0.23µV typ.	0.24µV typ.	0.25µV typ.	
			(at 5% BER)	0.18µV typ.	0.18µV typ.	0.18µV typ.	0.18µV typ.	0.18µV typ.	0.18µV typ.	–	
	Adjacent Ch. selectivity		FM (W/N)	77/71dB typ.	74/67dB typ.	77/71dB typ.	74/67dB typ.	77/71dB typ.	74/67dB typ.	75/65dB typ.	
			Digital	58dB typ.	58dB typ.	58dB typ.	58dB typ.	–	–	–	
	Spurious response rejection			90dB typ.	80dB typ.	91dB typ.	80dB typ.	91dB typ.	80dB typ.	70dB	
	Intermodulation rejection			75dB typ. (FM) 70dB typ. (Digital)	76dB typ. (FM) 72dB typ. (Digital)	75dB typ. (FM) 70dB typ. (Digital)		75dB typ.		74dB typ.	
	AF output power (at 5% distortion with an 8Ω load)			1000mW (typ. Internal SP) 400mW (typ. External SP)		800mW (typ. Internal SP, 12Ω load) 400mW (typ. External SP)		800mW typ. (Internal SP, 12Ω load) 400mW typ. (External SP)		700mW typ. (Internal SP) 500mW typ. (External SP)	

* 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

SPECIFICATIONS FOR HANDHELD TRANSCEIVERS

				IC-F3031S IC-F3033T/S	IC-F4031S IC-F4033T/S	IC-F3011	IC-F4011	IC-F3001 IC-F3003	IC-F4001 IC-F4003
GENERAL	Frequency coverage (Unit: MHz) (Varies according to version)			136–174	400–470 450–512 (USA) 450–520 (GEN)	136–174	400–470 450–512	136–174	350–400 (GEN) 400–470 450–512 (USA) 450–520 (GEN)
	Number of channels (Max.)			128 ch/8 zones		16 ch		16 ch	
	Type of emission			16K0F3E, 11K0F3E		16K0F3E, 11K0F3E		16K0F3E, 11K0F3E	
	Channel spacing (Unit: kHz) (Varies according to version)			12.5/25, 15/30	12.5/25	12.5/25, 15/30	12.5/25	12.5/25, 15/30	12.5/25
	Current drain	Tx	High	1.5A	1.6A	1.5A	1.6A	1.3A	1.3A
		Rx	Stand-by	75mA	75mA	70mA	70mA	75mA	70mA
			Max. audio	250mA	300mA	300mA	300mA	330mA	330mA
	Dimensions (projections not included; W×H×D)			53×120×37mm 2.09×4.72×1.46 in (With BP-232WP)		53×120×38mm 2.09×4.72×1.5 in (With BP-232H)		58×111×35.5mm 2.28×4.37×1.4 in (With BP-265)	
	Weight (approx.)			310g; 10.9oz (with BP-232WP)		300g; 10.6oz (With BP-232H)		330g; 11.6oz (With BP-264) 270g; 9.5oz (With BP-265)	
TX	RF output power (High)			5W	4W	5W	4W	5W	4W
	Spurious emissions			80dB typ.	70dB min.	80dB typ.		70dB min.	
	Frequency stability			±2.5ppm		±2.5ppm		±2.5ppm	
RX	Sensitivity (at 12dB SINAD)			0.25µV typ.		0.25µV typ.		0.25µV typ.	
	Adjacent Ch. selectivity (W/N)			75/65dB typ.		75/65dB typ.		78/70dB typ.	73/65dB typ.
	Spurious response rejection			70dB min.		70dB min.		70dB min.	
	Intermodulation rejection			75dB typ.	74dB typ.	74dB typ.		75dB typ.	74dB typ.
	AF output power (at 5% distortion with an 8Ω load)			500mW typ. (External SP)		500mW typ. (External SP)		800mW typ. (Internal SP 12Ω load) 400mW typ. (External SP)	

* 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

FUNCTION COMPARISON AND INTERNAL UNIT OPTIONS

		IC-F9011T/S/B IC-F9021T/S/B	IC-F70DT/DS IC-F70T/S IC-F80DT/DS IC-F80T/S	IC-F3261DT/DS IC-F3263DT/DS IC-F4261DT/DS IC-F4263DT/DS	IC-F3161DT/DS IC-F3161T/S IC-F3163T/S IC-F4161DT/DS IC-F4161T/S IC-F4163T/S	IC-F3230DT/DS IC-F4230DT/DS	IC-F3210D IC-F4210D	IC-F3101D IC-F3103D IC-F4101D IC-F4103D	IC-F50V IC-F60V	IC-F3031S IC-F3033T/S IC-F4031S IC-F4033T/S	IC-F3011 IC-F4011	IC-F3001 IC-F3003 IC-F4001 IC-F4003
Number of option slots		1	1	–	2 *2	–	–	–	–	1	–	–
CTCSS/DTCS	encoder	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	decoder	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
2-Tone	encoder	✔	✔	✔	✔	–	–	✔	✔	✔	–	✔
	decoder	✔	✔	✔	✔	–	–	✔	✔	✔	–	✔
5-Tone	encoder	–	✔	✔	✔	–	–	✔	✔	✔	–	✔
	decoder	–	✔	✔	✔	–	–	✔	✔	✔	–	✔
DTMF autodial		✔	✔	✔	✔	–	–	✔	✔	✔	–	✔
DTMF decoder		–	✔ *3	✔ *3	✔ *3	–	–	–	–	UT-108R	–	–
Voice Scrambler *1	Inversion	✔	✔	✔	✔	–	–	–	✔	–	–	–
	Non-rolling	–	UT-109 (Version 02)	–	UT-109R	–	–	–	–	UT-109R	–	–
	Rolling	–	UT-110 (Version 02)	–	UT-110R	–	–	–	–	UT-110R	–	–
APCO P25 digital		✔	✔ *5	–	–	–	–	–	–	–	–	–
APCO P25 trunking		✔	–	–	–	–	–	–	–	–	–	–
AES encryption		UT-125	EX-2785 J03	–	–	–	–	–	–	–	–	–
DES encryption		UT-125 or UT-128	EX-2785 J02	–	–	–	–	–	–	–	–	–
FIPS 140-2 Level 1		UT-125 FIPS	✔ *4	–	–	–	–	–	–	–	–	–
IDAS multi-site trunking		–	–	✔	UT-126H	✔	✔	–	–	–	–	–
IDAS single-site trunking		–	–	✔	UT-126H	✔	✔	✔	–	–	–	–
IDAS conventional		–	–	✔	UT-126H	✔	✔	✔	–	–	–	–
MDC 1200		✔	✔	✔	✔	–	–	✔	✔	✔	–	✔
LTR™ trunking		–	–	✔	✔	–	–	–	–	–	–	–
Man Down function		UT-124R	UT-124	✔ *4	UT-124R	–	–	–	–	UT-124R	–	–
Intrinsically safe		–	✔ *4	–	✔ *4	–	–	–	–	–	–	–
Vibration alert		–	–	–	–	–	–	–	✔ *4	–	–	–
Voice recorder		–	–	–	–	–	–	–	✔ *4	–	–	–

*1 Inversion type voice scrambler is not compatible with UT-109/UT-110 voice scrambler. *2 One for UT-126H digital unit and one for another option unit. *3 Possible as a kind of 5-Tone format.
*4 Depending on version. *5 UT-120 (version 01) required for IC-F70T/S, F80T/S.

SPECIFICATIONS FOR MOBILE TRANSCEIVERS

				IC-F9511HT	IC-F9511T IC-F9511S	IC-F9521T IC-F9521S	IC-F1721D, F1721	IC-F2721D, F2721	IC-F5061D IC-F5061, F5063	IC-F6061D IC-F6061, F6063
GENERAL	Frequency (Unit: MHz) (Varies according to version)			136–174	136–174	400–470 450–512	136–174	400–470	136–174	350–400 (EXP) 400–470 450–512 (USA) 450–520 (EXP)
	Number of channels (Max.)			512 ch/128 zones			256 ch/32 zones		512 ch/128 zones	
	Type of emission			16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D			16K0F3E, 11K0F3E, 8K10F1E*, 8K10F1D* (* Digital, depending on version)		16K0F3E, 11K0F3E, 8K10F1E/D, 4K00F1E/D* (* Digital, depending on version)	16K0F3E, 11K0F3E, 11K0F7E/D*[3], 8K10F1E/D, 4K00F1E/D* (* Digital, depending on version)
	Channel spacing (Unit: kHz) (Varies according to version)			12.5 (digital), 15/30 (analog)	12.5 (digital), 15/30 (analog)	12.5 (digital), 12.5/25 (analog)	15/30	12.5/25	12.5/25, 15/30 6.25 (With UT-126H)	12.5/25, 6.25 (With UT-126H)
	Current drain	Tx	High	22A	11A	14A	14A	10A	14A/7A(50/25W)	14A/7A(45/25W)
		Rx	Stand-by	400mA	350mA	350mA	600mA	400mA	300mA	300mA
			Max. audio	3.0A	1.0A	1.0A	1.2A	1.0A	1.2A	1.2A
	Dimensions (projections not included; W×H×D)			175×60×279mm 6.89×2.36×10.98 in	175×45×170mm 6.89×1.77×6.69 in		175×45×170mm 6.89×1.77×6.69 in		160×45×150mm 6.3×1.77×5.91 in	
	Weight (approx.)			4.7kg; 10.4lb (With controller)	1.5kg; 3.3lb		1.5kg; 3.3lb		1.3kg; 2.9lb	
TX	RF output power (High)			110W	50W	50W	50W	45W	50W (F5061/D) 25W (F5063)	45W (F6061/D) 25W (F6063)
	Spurious emissions			70dB min.			75dB typ.		75dB typ.	
	Frequency stability			±1.0ppm			±2.0ppm		±1.0ppm	
RX	Sensitivity		(at 12dB SINAD)	0.25µV typ.			0.25µV typ.	0.3µV typ.	0.25µV typ.	
			(at 5% BER)	0.25µV typ.			0.25µV typ.	0.3µV typ.	0.20µV typ.	
	Adjacent Ch. selectivity		FM (W/N)	81/53dB typ.	81/53dB typ.	79*[1]/53dB typ	80/75dB typ.		85/75dB typ.	
			Digital	63dB typ.	63dB typ.	63dB typ.	73dB typ.		–	
	Spurious response rejection			85dB min.	85dB min.	70dB*[2] min.	80dB typ.		90dB typ.	
	Intermodulation rejection			78dB typ.			77/75dB typ. (FM), 77dB typ. (Digital), P25 77dB typ.		77dB typ.	
	AF output power (at 10% distortion with an 4Ω load)			15W typ. (3% distortion, Ext SP)	4W typ. (Internal SP) 22W typ. (External SP)		4W typ. (Internal SP) 22W typ. (External SP)		4W typ. (5% distortion)	

*[1] 81dB typ. (406.1–420MHz), *[2] 85dB typ. (406.1–420MHz)

*[3] Depending on version.

				IC-F5220D	IC-F6220D	IC-F5121D IC-F5123D	IC-F6121D IC-F6123D	IC-F5021 IC-F5023/H	IC-F6021 IC-F6023/H	IC-F5011 IC-F5013/H	IC-F6011 IC-F6013/H
GENERAL	Frequency (Unit: MHz) (Varies according to version)			136–174	350–400 (EXP) 400–470 450–512 (USA) 450–520 (EXP)	136–174	350–400 (EXP) 400–470 450–512 (USA) 450–520 (EXP)	136–174	400–470 450–512 (USA) 450–520 (EXP)	136–174	400–470 450–512 (USA) 450–520 (EXP)
	Number of channels (Max.)			128 ch/8 zones		128 ch/8 zones		128 ch/8 zones		8 channels	
	Type of emission			16K0F3E*, 11K0F3E, 8K50F3E, 4K00F1E/F1D		16K0F3E, 11K0F3E, 4K00F1E/F1D		16K0F3E, 11K0F3E		16K0F3E, 11K0F3E	
	Channel spacing (Unit: kHz) (Varies according to version)			6.25/12.5/15/25*kHz		6.25/12.5/25, 6.25/15/30	6.25/12.5/25	12.5/25, 15/30	12.5/25	12.5/25, 15/30	12.5/25
	Current drain	Tx	High	10A	11A	10A/5A (50/25W)	11A/5A (50/25W)	10A/5A (50/25W)	11A/5A (50/25W)	10A/5A (50/25W)	11A/5A (50/25W)
		Rx	Stand-by	300mA	300mA	300mA	300mA	250mA	250mA	250mA	250mA
			Max. audio	1.2A	1.2A	1.2A	1.2A	0.7A	0.7A	0.7A	0.7A
	Dimensions (projections not included; W×H×D)			150×40×167.5mm 5.91×1.57×6.59 in		150×40×167.5 mm 5.91×1.57×6.59 in (50/45W) 150×40×117.5 mm 5.91×1.57×4.63 in (25W)		150×40×167.5 mm 5.91×1.57×6.59 in (50/45W) 150×40×117.5 mm 5.91×1.57×4.63 in (25W)		150×40×167.5 mm 5.91×1.57×6.59 in (50/45W) 150×40×117.5 mm 5.91×1.57×4.63 in (25W)	
	Weight (approx.)			1.1kg; 2.4 lb		1.1kg; 2.4lb (50/45W) 0.8kg; 1.8lb (25W)		1.1kg; 2.4 lb (50/45W) 0.8kg; 1.8lb (25W)		1.1kg; 2.4 lb (50/45W) 0.8kg; 1.8lb (25W)	
TX	RF output power (High)			50W	45W	50W (F5121D, F5123D) 25W (F5123D)	45W (F6121D, F6123D) 25W (F6123D)	50W (F5021, F5023H) 25W (F5023)	45W (F6021, F6023H) 25W (F6023)	50W (F5011, F5013H) 25W (F5013)	45W (F6011, F6013H) 25W (F6013)
	Spurious emissions			87dB typ.	85dB typ.	72dB min. (F5121D) 70dB min. (F5123D)	72dB min. (F6121D) 70dB min. (F6123D)	70dB typ.		70dB min.	70dB typ.
	Frequency stability			±1.0ppm		±1.0ppm		±2.5ppm		±2.5ppm	
RX	Sensitivity		(at 12dB SINAD)	0.25µV typ.		0.25µV typ.		0.25µV typ.		0.25µV typ.	
			(at 5% BER)	0.18µV typ.		0.18µV typ.		–		–	
	Adjacent Ch. selectivity		FM (W/N)	80/70dB typ.	75/66dB typ.	80/70dB typ.	75/70dB typ.	75/65dB typ.		75/65dB typ.	
			Digital	65dB typ.	60dB typ.	65dB typ.	60dB typ.	–		–	
	Spurious response rejection			80dB typ.		70dB min.		80dB typ.		70dB min.	
	Intermodulation rejection			75dB typ. (FM) 70dB typ. (Digital)		75dB typ. (FM) 70dBµV emf typ. (Digital)		75dB typ.		75dB typ.	
	AF output power (at 5% distortion with an 4Ω load)			4W typ.		4W typ.		4W typ.		4W typ.	

* 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

SPECIFICATIONS FOR REPEATERS

				IC-FR9010	IC-FR9020	IC-FR5000	IC-FR6000
GENERAL	Frequency (Unit: MHz) (Varies according to version)			146–174	440–475	136–174	350–400 (EXP) 400–470 450–512 (USA) 450–520 (EXP)
	Number of channels (Max.)			500 ch		32 ch	
	Type of emission			16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D		16K0F3E, 11K0F3E, 11K0F7E/D/W 8K50F3E*1, 4K00F1E/D, 4K00F3E	16K0F3E, 11K0F3E, 11K0F7E/D/W, 4K00F1E/D, 4K00F3E
	Channel spacing (Unit: kHz) (Varies according to version)			12.5/25kHz		6.25/12.5/25 or 7.5/15/30	
	Power supply requirements			13.6V DC		13.6V DC	
	Current drain	Tx	High	16A	18A	15A	15A
		Rx	Stand-by	280mA	280mA	400mA*2	400mA*2
			Max. audio	3A	3A	1.9A	1.9A
	Dimensions (projections not included; W×H×D)			482×88×413mm; 18.98×3.46×16.26in		483×88×260mm 19.02×3.46×10.24 in	
	Weight (approx.)			11kg; 24.3lb		5.6kg; 12.3lb	
TX	RF output power (High)			110W	100W	50W	
	Spurious emissions			80dB	76dB	80dB typ.	
	Frequency stability			±2.5ppm (analog) ±1.5ppm (digital)	±1.5ppm (analog) ±1.5ppm (digital)	±0.5ppm	
RX	Sensitivity		(at 12dB SINAD)	0.30µV typ.		0.3µV typ.	0.25µV typ.
			(at 5% BER)	0.30µV typ.		0.25µV typ.	0.25µV typ.
	Adjacent Ch. selectivity		FM (W/N)	82/76dB	80/72dB	78/56dB typ.	
			Digital	55dB	55dB	63dB typ.	
	Spurious response rejection			95dB (W/N) 95dB (Digital)	85dB (W/N) 83dB (Digital)	90dB typ.	
	Intermodulation rejection			79dB (W/N) 79dB (Digital)	77dB (W/N) 77dB (Digital)	78dB typ.	
	AF output power (at 5% distortion)			7.5W typ. (with 8Ω load)		4.0W typ. (with 4Ω load)	

*1 Exp version only *2 Fan off, backlight off
* 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

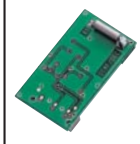
FUNCTION COMPARISON AND INTERNAL UNIT OPTIONS

		IC-F9511HT	IC-F9511T IC-F9511S IC-F9521T IC-F9521S	IC-F1721/D IC-F2721/D	IC-F5061/D IC-F5063 IC-F6061/D IC-F6063	IC-F5220D IC-F6220D	IC-F5121D IC-F5123D IC-F6121D IC-F6123D	IC-F5021 IC-F5023/H IC-F6021 IC-F6023/H	IC-F5011 IC-F5013/H IC-F6011 IC-F6023/H	IC-FR9010 IC-FR9020	IC-FR5000 IC-FR6000
Number of option slots		1	1	1	2*2	–	–	1	1	–	1
CTCSS/DTCS	encoder	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	decoder	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
2-Tone	encoder	✔	✔	✔	✔	–	✔	✔	✔	–	–
	decoder	✔	✔	✔	✔	–	✔	✔	✔	–	–
5-Tone	encoder	–	–	✔	✔	–	✔	✔	✔	–	✔
	decoder	–	–	✔	✔	–	✔	✔	✔	–	✔
DTMF autodial		✔	✔	✔	✔	–	✔	✔	✔	–	✔
DTMF decoder		–	–	✔*3	✔*3	–	–	UT-108R	UT-108R	–	✔
Voice Scrambler*1	Inversion	✔	✔	✔	✔	–	–	–	–	–	✔
	Non-rolling	–	–	UT-109 (Version 02)	UT-109R	–	–	UT-109R	UT-109R	–	UT-109R
	Rolling	–	–	UT-110 (Version 02)	UT-110R	–	–	UT-110R	UT-110R	–	UT-110R
APCO P25 digital		✔	✔	✔*4	–	–	–	–	–	✔	–
APCO P25 trunking		✔	✔	–	–	–	–	–	–	–	–
AES encryption		UT-125	UT-125	EX-2785 J03	–	–	–	–	–	–	–
DES encryption		UT-125 or UT-128	UT-125 or UT-128	EX-2785 J02	–	–	–	–	–	–	–
FIPS 140-2 Level 1		UT-125 FIPS	UT-125 FIPS	–	–	–	–	–	–	–	–
IDAS multi-site trunking		–	–	–	UT-126H	✔	–	–	–	–	UC-FR5000*6
IDAS single-site trunking		–	–	–	UT-126H	✔	✔	–	–	–	UC-FR5000
IDAS conventional		–	–	–	UT-126H	✔	✔	–	–	–	UC-FR5000*7
MDC 1200		✔	✔	✔	✔	–	✔	✔	✔	–	–
LTR™ trunking		–	–	–	✔	–	–	–	–	–	✔*5

*1 Inversion type voice scrambler is not compatible with UT-109/UT-110 voice scrambler. *2 One for UT-126H digital unit and one for another option unit.
*3 Possible as a kind of 5-Tone format. *4 UT-120 (version 02) required for IC-F1721/F2721.
*5 External controller required. *6 UC-FR5000 and CF-FR5000MT required.
*7 UC-FR5000 and CF-FR5000MC required for Multi-site conventional.

✔ : Available UT-108 : Required internal unit (Eg. UT-108) – : Not available

UT-108/R DTMF DECODER



UT-109/R VOICE SCRAMBLER UNIT

UT-110/R VOICE SCRAMBLER UNIT

UT-120 P25 DSP UNIT

UT-124/R MAN DOWN UNIT

UT-125/UT-125 FIPS AES/DES ENCRYPTION UNIT

UT-126H IDAS DIGITAL UNIT

SPECIFICATIONS FOR HF TRANSCEIVERS

			IC-F8101	IC-F7000
GENERAL	Frequency coverage	Rx	0.5–29.999MHz (Continuous)	0.5–29.999MHz (Continuous)
		Tx	1.6–29.999MHz	1.6–29.999MHz (Some frequency ranges are not guaranteed.)
	Number of channels		500 ch 500 selcall ch, 500 ALE ch	500 ch (Including 100 ALE channels)
	Type of emission		J3E, J2B, F1B, A1A, A3E (EXP/USA version) * J3E and A3E (RX only) for Australia version.	J3E, J2B, F1B, A1A, A3E * J3E and A3E (RX only) for Australia version.
	Power supply requirements		13.8V DC (11.73–15.87V DC, EXP/USA version) 13.8V DC (10.8–15.6V DC, AUS version)	13.8V DC (10.8–15.6V DC)
	Current drain	Tx	28A	28A
		Rx	3.0A	3.0A
	Dimensions (projections not included; W×H×D)	Main unit	174×62×259mm; 6.85×2.44×10.2in (Controller attached type)	240× 72×239mm; 9.45×2.83×9.41in
		Controller	–	150×50×51mm; 5.91×1.97×2.01in
	Weight (approx.)	Main unit	3.9kg; 8.6lb (Controller attached type)	4.6kg; 10.1lb
		Controller	–	220g; 7.7oz
TX	RF output power		125/50/10W PEP (J3E/A1A, EXP/USA version) 75/50/10W PEP (F1B/J2B, EXP/USA version) 30/12.5/3W PEP (A3E, EXP/USA version)	125/50/10W PEP (1.6–3.99MHz, OTH version) 100/50/10W PEP (4–29.99MHz, OTH version)
			100/50/10W PEP (J3E, AUS version)	100/50/10W PEP (AUS version)
	Spurious emissions		64dB typ. below PEP	43dB below PEP*
	Carrier suppression		50dB below PEP	40dB below PEP
	Unwanted sideband		55dB below PEP (400Hz) 65dB below PEP (1kHz)	50dB below PEP (1500Hz)
RX	Sensitivity	J3E	14dBμV (0.5–1.599MHz, at 10dB S/N) –14dBμV (1.6–29.999MHz, at 10dB S/N)	14dBμV (0.5–1.599MHz, at 10dB S/N) –14dBμV (1.6–29.999MHz, at 10dB S/N)
		A3E	22dBμV (0.5–1.599MHz, at 10dB S/N) 6dBμV (1.6–29.999MHz, at 10dB S/N)	32dBμV (0.5–1.599MHz, at 10dB S/N)
	Selectivity	J3E	2.4kHz/–6dB, 3.8kHz/–60dB	–
		A3E	6kHz/–6dB, 15kHz/–60dB	–
	Spurious response rejection		70dB	70dB
	AF output power (at 10% distortion)		4.0W typ. (with 4Ω load)	4.0W typ. (with 4Ω load)

* 40dB below PEP (3.5–3.99MHz, OTH version)

SPECIFICATIONS FOR AUTOMATIC TUNING ANTENNAS

		AH-760	AH-740
Frequency coverage	With whip antenna	1.6–29.9999MHz	2.5–29.9999MHz
	With AH-5NV	1.6–16.0000MHz	2.2–29.9999MHz
Output power rating		SSB: 200W PEP* CW/DATA: 125W PEP*	SSB/DATA: 125W PEP
VSWR	With whip antenna	1.3:1 typical (50Ω)	1.5:1 typical (50Ω)
	With AH-5NV	1.5:1 typical (50Ω)	1.5:1 typical (50Ω)
Tuning speed	New channel	Less than 1.8S	2–3S typical
	Memory tune	Less than 350mS	150mS typical
Number of memory channels		200 channels	45 channels
Power supply requirements		13.8V DC (10.8–15.87V DC)	13.8V DC (10.8–15.87V DC)
Power consumption		1.87A typical (tuning)	0.4A typical
Tune power		5–15W PEP, Rated 10W PEP	5–15W PEP, Rated 10W PEP
Dimensions (projections not included)	Base unit (W×H×D)	840×100×100mm; 33.07×3.94×3.94in	238×145×160mm; 9.37×5.71×6.3in
	Height	2475mm; 97.44 in	1909mm; 75.16 in
Weight (approx.)		5.2kg; 11.5lb	3.5kg; 7.7lb
Mounting		M16×45mm	M16×45mm
Supplied accessories		6m; 19.7ft control cable and 6m; 19.7ft coaxial cable	6m; 19.7ft control cable and 6m; 19.7ft coaxial cable

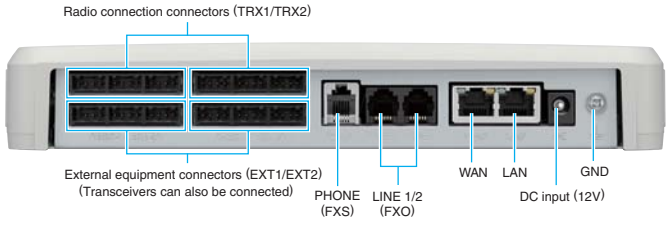
* Maximum 6 minute continuous transmission at 35˚C.

SPECIFICATIONS FOR RoIP AND VPN ROUTER

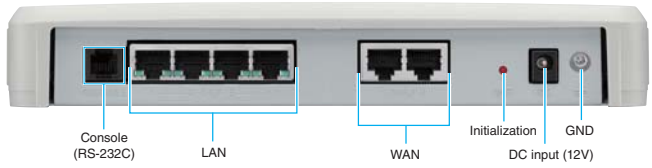
	VE-PG3
Power supply	100–240V AC 12V DC ±10% (with supplied AC adapter)
Dimensions (projections not included; W×H×D)	232×38×168mm; 9.13×1.5×6.61in
Weight (approx.)	800g; 1.76lb
Regulatory compliance	FCC (Part 15 Class B/Part 68), TIA868-B ICES-003, ICCS-03 CE mark, ETSI ES 203 021 ETSI EG 201 121 (Advisory note)
LAN/WAN	RJ-45 connector × 2 100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
TRX 1/2 port	Analog audio/transmit control 2.54mm (0.1 in) pitch quick connector (4 terminals ×3)×2
EXT 1/2 port	General audio/transmit control/Relay circuit 2.54mm (0.1 in) pitch quick connector (4 terminals ×3)×2
Telephone set port	RJ-11 connector ×1
Telephone line port	RJ-11 connectors ×2
USB	Standard A receptacles ×2
Network protocol	IPv4
Signaling protocol	SIP
Codec	G.711 μ-law, AMBE+2 (Optional CT-24 required)

	SR-VPN1
Power supply	100–240V AC 12V DC ±10% (with supplied AC adapter)
Dimensions (projections not included; WxHxD)	232×38×168mm; 9.13×1.5×6.61in
Weight (approx.)	800g; 1.76lb
Regulatory compliance	FCC (Part 15 Subpart B), ICES-003, EN55022/EN55024/EN61000-3-2/EN61000-3-3
WAN	RJ-45 connector × 2 1000BASE-T/100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
LAN	RJ-45 connector × 4 with switching function 1000BASE-T/100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
USB	Standard A receptacles ×2
Maintenance console	RS-232C (RJ-11) connector
Network protocol	IPv4
IPsec tunnels	Up to 32
Encryption	3DES, AES-128, AES-192, AES-256
Authentication	MD5, SHA-1
IKE keying method	Pre-shared key
NAT traversal	Supported
Multicast protocol	VE-PG3 and VE-PG2 supported

REAR PANEL VIEW



REAR PANEL VIEW



BATTERY PACKS AND CHARGERS

Battery packs	BP-253	BP-254, BP-254FM	BP-227	BP-274	BP-232WP	BP-230N	BP-232FM	BP-232H	BP-264	BP-265
Transceivers	IC-F70T/S series	IC-F9011T/S/B series IC-F70T/S series	IC-F50V series		IC-F3261DT/DS series IC-F3230DT/DS series IC-F3031S/F3033T series	IC-F3161T/S series, IC-F3011 series			IC-F3210D series IC-F3101D series IC-F3001 series	
Rapid charger	BC-119N + BC-145S + AD-110		BC-119N + BC-145S + AD-100 or BC-190 + BC-123S		BC-119N + BC-145S + AD-106 or BC-160 + BC-145S				BC-191+ BC-123S	BC-193+ BC-123S
Regular charger	N/A		BC-152N + BC-147S		BC-171 + BC-147S				BC-192 + BC-147S	N/A
Multi-charger	BC-121N + BC-157S + AD-110*1		BC-121N + BC-157S + AD-100*1		BC-197 + BC-157S (+ AD-122 *2) BC-121N + BC-157S + AD-106 *1				BC-197 + BC-157S (+ AD-120 *2)	(+ AD-121 *2)
Operating time (Tx:Rx:Stand-by=5:5:90)	8 hours*3	9 hours*3 (with IC-F9011T)	10 hours*3	10 hours*3	17.5 hours*3 (with IC-F3031S)	5.5 hours*3 (with IC-F3161T)	12 hours*3 (with IC-F3161T)	14 hours*3 (with IC-F3161T)	14 hours*3 (with IC-F3001)	20 hours*3 (with IC-F3001)

*1 Six charger adapters are required. *2 Either AD-120, AD-121, or AD-122 charger adapters are supplied with the BC-197. *3 As a rough value.

ADDITIONAL SPECIFICATIONS AND FEATURES

Rugged MIL-STD 810

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and Ingress Protection Standards.

Standard	Low Pressure	High Temperature	Low Temperature	Temperature Shock	Solar Radiation	Rain Blowing/ Drip	Humidity	Salt Fog	Dust	Immersion	Vibration	Shock	Ingress Protection Rating
MIL-810 G	500.5 I, II	501.5 I, II	502.5 I, II	503.5 I-C	505.5 I	506.5 I, III	507.5 II	509.5	510.5 I	512.5 I	514.6 I	516.6 I, IV	
MIL-810 F	500.4 I, II	501.4 I, II	502.4 I, II	503.4 I	505.4 I	506.4 I, II	507.4	509.4	510.4 I	512.4 I	514.5 I	516.5 I, IV	
IC-F9011T/S/B series	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	IP57
IC-F70DT/DS series	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	IP57
IC-F3261DT/DS series	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	IP67
IC-F3161DT/DS series	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP55
IC-F3230DT/DS series	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	IP67
IC-F3210D series	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP54
IC-F3101D series	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP54
IC-F50V, IC-F60V	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP67
IC-F3031S/F3033T/S series	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	IP67
IC-F3011, IC-F4011	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP54
IC-F3001 series	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP54
IC-F9511HT	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP54
IC-F9511T/S series	✔	✔	✔	✔	✔		✔	✔	✔		✔	✔	IP54*2
IC-F2721/D series	✔	✔	✔	✔	✔		✔	✔	✔		✔	✔	IP54*2
IC-F5061/D series	✔	✔	✔	✔	✔	✔*1	✔	✔	✔		✔	✔	IP54*1
IC-F5220D series	✔	✔	✔	✔	✔		✔				✔	✔	
IC-F5121D series	✔	✔	✔	✔	✔		✔		510.4 III*3		✔	✔	
IC-F5021 series	✔	✔	✔	✔	✔		✔		510.4 III*3		✔	✔	
IC-F5011 series	✔	✔	✔	✔	✔		✔		510.4 III*3		✔	✔	
IC-FR9010, IC-FR9020		✔	✔								✔	✔*4	
IC-FR5000, IC-FR6000		✔	✔						✔		✔	✔*4	
IC-F8101	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	IP54
IC-F7000		✔	✔								✔	✔*4	
AH-760	✔	✔	✔	✔	✔	✔*5	✔	✔	✔	✔	✔	✔	IP68
AH-740	✔	✔	✔	✔	✔	✔*5	✔	✔	✔		✔	✔	IP55

*1 Rain blowing, drip and IP dust and water tests were performed on the controller and RMK-3 only. *2 IP dust and water tests were performed on the controller and RMK-2 only.
*3 Settling dust test (510.4 III) passed only. *4 Shock Functional test (516.5 I) passed only. *5 Rain blowing test (506.5 I) passed only.
The MIL-810 G requirements were tested to IC-F3261D, F3230D, F3210D, F3031, F5220D, FR9010, F8101, AH-760 and AH-740 series only. Other models were tested to MIL-810 F requirements.

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